

**CORPORATE SOCIAL RESPONSIBILITY PRACTICES AND FINANCIAL  
PERFORMANCE OVER TIME FOR SELECTED U.S. CORPORATIONS**

A Dissertation

by

KELLI CATHERINE PHELAN RIBERA

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of  
DOCTOR OF PHILOSOPHY

August 2010

Major Subject: Educational Human Resource Development

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Approved by:

Co-Chairs of Committee,	Toby Egan Homer Tolson
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## ABSTRACT

Corporate Social Responsibility Practices and Financial Performance over Time for Selected  
U.S. Corporations. (August 2010)

Kelli Catherine Phelan Ribera, B.S., University of Louisiana-Lafayette;  
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Corporate social responsibility (CSR) is a subject long debated since the 1930s, but the premises of the topic in regards to the what, how, why, and to whom it should be remain in question. The relation between CSR and corporate financial performance (CFP) has emerged at the forefront of this debate, particularly within the last 30 years, yet no unified theory has been reached. Other scholars interested in CSR have criticized the emphasis on CFP as a means of economic justification for what they believe to be a broader social issue, and have attempted to redirect the focus in CSR research to include other motivations and outcomes associated with organizational stakeholders other than shareholders.

Using a descriptive and instrumental stakeholder theory approach, the focus of the current study was to explore CSR practices in both a dependent and independent sense. These theoretical underpinnings reflect stakeholder management decisions based on organizational characteristics, and the strategic management of various organizational stakeholders, respectively. The study population consisted of a diverse array of 353 U.S.-based corporations, 80% from the *Fortune 500*. Data included eleven corporate classification variables that represented organizations' geographical location, industry, executive leadership dimensions, and financial health. It also included six CFP variables that

represented accounting and market-based measures, and seven CSR variables that represented the key organizational stakeholders of the local community and environment, employees, and customers. The corporate classification variables were utilized to assess CSR performances, while CFP was assessed by analyzing differences among levels of the CSR practices. These assessments were performed for organizations for the twelve years within 1991-2002.

Several results that assisted in informing descriptive and instrumental stakeholder theory were produced through the examination of previously used and under-explored variables. Specifically, the study results included new insights regarding how several organizational characteristics related to their CSR practices. Study findings provided elaboration regarding how performance differences in seven key CSR categories affected six representative accounting and market-based measures of corporate financial performance. Implications for practice for organizational decision-makers are provided along with detailed information pertaining to how, with inferences as to why, firms engage in CSR. Additionally, associated financial outcomes from different levels of CSR implementation are reported.

Key findings from the study were that the CSR practices regarding employees and the environment remained stable over the twelve-year time period. Additionally, organizations' geographical location, financial health, and corporate leadership dimensions had an impact on CSR practices for various stakeholder groups, with the exception of employees. A high level of investment in CSR for certain stakeholder groups did not produce the best financial outcomes in all cases; however, organizations that emphasized CSR in the categories relative to the community and its employees outperformed others with respect to certain financial performance measures.



## **DEDICATION**

To Luis, my parents, and my unborn son – Nicolas Alejandro

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It is with great joy that I write this section of the dissertation, because it signifies the completion of an unbelievably long and arduous phase in my life. Through this process, I have grown tremendously as an individual, and I must give all of the glory and praise to my loving God and personal savior, Jesus Christ. For I know that my ability to reach this stage was dependent upon Him, who has been right beside me every step of the way whenever I called upon His help. Praise the Lord!

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I could not produce a list of acknowledgments without addressing my parents – Mom, Dad, and Marilyn. All of you have given me so much love over the years, and the freedom to choose my paths in life; although not without your ready support and guidance. I can trace my success back to the influence of my grandparents as well – Granny, Papaw, Babydoll, & Daddypop. For as long as I can remember, these loved ones have encouraged betterment through a good education. Little did I know when I first started college that I would make it so far, but I attribute my determination to my family who made me believe that I could. The

same sentiment that I gave to Luis about unconditionally loving and supporting me applies to you as well. Thank you for never making me feel like I would be a disappointment if I decided to quit this task or ended up not being able to finish. Through all of the difficult times, I always knew that you would be proud of me no matter what. I love you all so dearly!

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## CHAPTER I

### INTRODUCTION

Corporate social responsibility (CSR) is a topic of study that has been in question since the 1930s; however, the debate of what it is or should be still remains (McWilliams, Siegel, & Wright, 2006). CSR has surfaced in several disciplines that span across law, economics, political science, business, and other social sciences (Lockett, Moon, & Visser, 2006). The field of Human Resource Development (HRD) is interdisciplinary, and draws from theories of business, systems, psychology, and economics; and primarily focuses on the improving of learning and performance of individuals, groups, and organizations. From a systems theory perspective, HRD has the capacity to influence the larger system in which it exists, which can be extended to both internal and external organizational levels (Swanson, 2001). Similarly, organizational commitment to CSR practices impact internal and external perceptions regarding corporate values. Scholarly discussions on the roles of HRD professionals toward supporting socially responsible organizations have emerged (see Bierema & D'Abundo, 2004; Hatcher, 2003; Phelan, 2005; Wilcox, 2006), but few studies have been conducted to examine such propositions. Nevertheless, given the organizational context associated with CSR, the topic appropriately fits within the domain of HRD. As Bierema and D'Abundo (2003) stated, "The world is undeniably affected by corporate values, and the field and practice of HRD is no exception." (p. 215). Although the current study was not overtly situated within the context of HRD, results associated with organizational decision-making, CSR practices, and performance implications provide insights for HR professionals seeking to engage in CSR.

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The style and format of this dissertation follow that of *Human Resource Development Quarterly*.

The study was conducted at the organizational level, with 353 U.S. based corporations as the study participants, and their respective CSR practices utilized as both independent and dependent variables. This research was largely exploratory in nature and was designed to examine outcomes and effects of what are commonly considered to be the primary CSR practices relative to various corporate classification and financial performance variables. The corporations in the study varied on many aspects, and were grouped according to geographical location within the U.S., primary industry, diversity of executive leadership, compensation of corporate leaders, level of closely held shares, and selected variables of financial performance. A strength of the study is the large amount of variables that were incorporated, as well as in the longitudinal nature of including data from a period of twelve consecutive years.

### **Background**

CSR is not a mere business buzzword, rather a topic of growing importance for businesses and their constituents, as shown by various media presentations, academic publications, and corporate reports over the last decade. Although CSR has recently surfaced more strongly, it is not a new subject. It emerged in American business and legal literature in the 1930s (Carroll, 1999), when scholars began arguing for and against the direct participation of corporations in societal advancement (Dodd, 1932). Early literature on the subject revealed newfound interest in corporations as entities with great resources and leverage, and questions about ways in which these assets should be properly managed (Davis, 1967; 1973; Dodd, 1932; Levitt, 1958; Moskowitz, 1972). Years of scholarly debates – for and against CSR – followed. Most writings were comprised of essays and theoretical articles, rather than empirical works. In such writings, authors expressed varying viewpoints

on the potential benefits and consequences of corporations' degrees of involvement within American society. Early supporters of CSR portrayed it in an obligatory sense, both morally and legally, and viewed CSR as a potential business opportunity on which to capitalize (Carroll, 1979; 1991; Davis, 1973; Dodd, 1932; Drucker, 1984; Freeman, 1984; Moskowitz, 1972). Naysayers of CSR declined to view it as an opportunity and instead cautioned proponents of the topic against the loss of capitalism through such broad-based social support (Davis, 1973; Dodd, 1932; Friedman, 1970; Levitt, 1958).

While theoretical arguments for and against CSR by business and other scholars have continued (Garriga & Melé, 2004; Moir, 2001), the birth of empirical work on the subject only emerged in the 1970s. This was mainly as a response to Friedeman's (1970) posit that a corporation's real and only social obligation is legally defined as maximizing the wealth of shareholders, and furthermore with the implicit challenge for empirical evidence regarding economic incentives of CSR by Moskowitz (1972).

Challenges to CSR led to a dramatic increase in empirical research by scholars seeking to relate the social and financial performance of corporations. Such studies have generated a mix of results and have often been deemed inconclusive (Arlow & Gannon, 1982; Griffin & Mahon, 1997; Ullman, 1985). A plausible explanation for the mix of positive, negative, and neutral results is that there have been so many different types of studies on the relationships between corporate social and financial performance (Wood & Jones, 1995), in which many different variables were used to analyze the constructs (Orlitzky, Schmidt, & Rynes, 2003; Wu, 2006). The once mere topic of discussion by business and society that originated decades before has grown into a topic of inquiry by academics across disciplines such as management, economics, accounting, finance, law, and

others who have attempted to explore and explain the concept as relevant to their field of study. As a result, the concept has become quite broad; and the meaning of what CSR actually is, should, or could be remains ambiguous and widely debated by both scholars and practitioners, even amidst the over 30 years of empirical research on the subject. Extant ambiguity includes use of lexicons such as social responsibility, corporate citizenship, corporate social performance, and CSR, which in many cases are used interchangeably.

Amidst the turmoil in academic research however, CSR began to resurface within other social realms. A spike of interest in CSR was perpetuated by infamous scandals of corporate giants such as Nike, Enron, Tyco, and WorldCom (Burns, 2003; Heath & Norman, 2004; McGuire, Dow, & Argheyd, 2003; Smith, 2003), that captured the public's attention and propelled a movement of social interest comprised not only of individuals, but many other constituent parties who have actively sought to promote greater social responsiveness by businesses. These constituent parties include the U.S. government; financial market investors who have created a trend in social investing; institutions of higher education and respective business schools that are revamping curricula to include more emphasis on ethics; and various activists groups that exist to promote different social agendas (Margolis & Walsh, 2003). Given the increased attention and interest in CSR, the topic can be deemed as timely and relevant for businesses.

Although numerous research studies have been published starting more than 30 years ago that focused on the relationship between CSR (often named corporate social performance, or CSP) and corporate financial performance (CFP), all attempting to answer the big question of whether or not socially responsible practices are profitable practices, numerous research questions exploring these relationships still remain (Marom, 2006;

Orlitzky, Schmidt, & Rynes, 2003; Simpson & Kohers, 2002). Since both constructs of CSP and CFP can be comprised of many interchanging combinations of variables, previous study methodologies vary in terms of definitions and construct formation, leading to inconsistent and non-overlapping results (Griffin & Mahon, 1997; Margolis & Walsh, 2003; Rowley & Berman, 2000; Ullman, 1985).

A suggested context for inquiry that has become prolific in research of both the CSP and CFP constructs involves stakeholder theory (Freeman, 1984). Stakeholder theory purports that the corporation is responsible to an array of constituents other than just its shareholders. The underlying premise was present in the earliest literature on CSR (Dodd, 1932); however, the theory began to flourish after the writings of Freeman (1984), in which he essentially challenged the economic presumption that indulging stakeholders beyond corporate shareholders or direct investors would be detrimental to corporations. Stakeholder theory in research allows for the deconstruction of aggregate measures of CFP and CSP, and propels the matching of certain performance variables with expected outcomes and related constituents. Incorporating stakeholder theory can provide deeper insights and richer information about the two broad constructs of CFP and CSP, whether analyzed in association to each other or individually. Since the work of Freeman (1984), many CSR scholars have conducted research using a multiple stakeholder lens (Margolis & Walsh, 2003) to further explain CSP and CFP, and their respective relationships.

In a meta-analysis of the past 30 years of empirical studies on the CSP-CFP link, Orlitzky, Schmidt, and Rynes (2003) reached the conclusion that there is a significant positive connection between CSP and CFP, supporting the idea that a socially responsible and financially profitable corporation can and does in fact exist. Nevertheless, Bird, Hall,

Momentè, and Reggiani (2007) pointed to the wide range and large number of dependent variables employed in the studies within the meta-analysis and thus questioned its validity. In addition, scholars interested in the CSP-CFP link have cautioned against the variations in research and have suggested a focus on fewer, key CSP and CFP measures to increase internal validity rather than generalizability (Bird et al., 2007; Griffin & Mahon, 1997), calling for continued research to fulfill the need for a more unified theory (Marom, 2006; Simpson & Kohers, 2002). Despite the calls for continued research on the associations between CSP and CFP, a few scholars (Margolis & Walsh, 2003; Rowley & Berman, 2000) instead called for a “moratorium” of the popular CSP-CFP research (Orlitzky, Schmidt, & Rhynes, 2003, p. 404), and claimed that it was only serving as an overstated means of economic justification for the field and a hindrance to the more appropriate social research. In agreement with Rowley and Berman (2000) and Margolis and Walsh (2003), mainstream CSR scholars, Carroll (2000) and Griffin (2000), have also stated the need for meaningful additions to CSR research, less focused on presenting persuasive business arguments and more focused on solidifying the meaning of the actual construct of CSR (or CSP).

While a growing momentum in support of CSR in general exists by both business scholars and practitioners, these same groups struggle with the grandness of the construct and its numerous possibilities. Famous management strategists (Porter & Kramer, 2006) and others (Berman, Wicks, Kotha, and Jones, 1999; Burke & Logsdon, 1996) have even taken interest in the topic and provided their words of encouragement for the fit of CSR as part of mainstream corporate strategy. Other CSR scholars interested in the CSP-CFP link have been busy trying to pinpoint more accurate financial variables as representations of financial performance related to CSP, and there has been a new-founded growing interest in market



values, versus the previously employed accounting variables in the CSP-CFP research (Bird et al., 2007; Hillman & Keim, 2001). In addition, more recent scholars (Bird et al., 2007; Hillman & Keim, 2001) have shed light on the importance of employing disaggregated measures of CSP versus an aggregated construct that often veils the interactions of specific variables within the construct. Moreover, the more fundamental CSR scholars, or those mainly concerned with the implications of the social relations between business and society, in calling for a step away from the popular CSP-CFP research stream, have pushed the focus back on the CSP construct to consider what it means, what it's comprised of, and how it's implemented (Carroll, 2000; Griffin, 2000; Margolis & Walsh, 2003; Rowley & Berman, 2000). Thus, the looming question now is not so much *why* CSR, but rather *how* business should respond to the urge of social responsibility and still remain in its original financially viable frame; and as others have previously noted, questions answering the *what's* of CSR will help answer the previous two (Margolis & Walsh, 2003; Rowley & Berman, 2000).

### **Problem Statement**

The notion of CSR has existed since the 1930s; however, the premises of the concept are uncertain (Rodriguez, Siegel, Hillman, & Eden, 2006). Although more than thirty years of studies have been produced on the relationships between the social responsibility and financial performance of corporations, the validity of previous research has been questioned (Margolis & Walsh, 2003; Orlitzky et al., 2003), and no unified theory has been formed (Kohers & Simpson, 2002; Marom, 2006). This has been in large part due to the fact that both CSP and CFP are broad constructs, neither of which has been consistently measured. In addition, few researchers who have explored these relationships included consistent measures over a substantial time span, which leads to additional questions of reliability for previous

research. The result is having a broad understanding of the relationship between two multidimensional constructs without clear information on the many possible variable combinations, such as how an aspect of CSR can be shown to impact a dimension of CFP, or how different measures of financial performance can yield various socially responsible practices.

The emphasis on research exploring the CSP-CFP relationships, as mostly a means of economic substantiation for CSR, has led researchers away from other fundamental questions about the nature of CSR practices and how they are established. Thus, determining the socially responsible (or irresponsible) practices that have existed among recognized businesses through trend analysis would serve to better clarify this phenomenon, as well as possibly aid in the development of socially responsible business agendas by more corporations. Furthermore, additional analyses that focus on the relationship between CSP and CFP, by exploring patterns over time or with individual variables of the two constructs for example, would be of further benefit to corporate and CSR managers and of course, the on-going conversation in CSR research.

### **Purpose of the Study**

One purpose of this study was to determine if companies with different levels of various aspects of corporations, such as: geographical location, industry sector, compensation of executive leaders, stock ownership by corporate officers and directors, diversity in the composition of board and officers, and certain financial performance indicators, exhibited differences in CSR practices. Additionally, the researcher was interested in these differences over time. These purposes were accomplished through examining the social responsibility practices of 353 U.S. corporations over a twelve-year time span within the six primary CSR

categories of community relations, diversity, employee relations, environment, product, and corporate governance, and a composite variable of total CSR.

An additional purpose of the study was to determine if organizations that differed in levels of CSR practices exhibited differences in accounting and market-based measures of corporate financial performance, over the same time period. This purpose was accomplished utilizing the seven aforementioned CSR categories as independent variables for the same sample of corporations.

These purposes were established with the hopes of further understanding the possible determinants for CSR practices, and to better clarify the relationships between levels of CSR and CFP. To accomplish these purposes, the researcher employed accepted measures of both constructs, in addition to variations in previous study methods. The goal was to determine if previous study findings hold true over time, as well as to further establish the CSP-CFP theoretical framework.

The theoretical orientation for the study was based on two divisions of stakeholder theory – descriptive and instrumental. Descriptive stakeholder theory involves how various organizational characteristics and behaviors affect the treatment of organizational stakeholder groups, such as employees, customers, shareholders, and the local community and environment. Instrumental stakeholder theory focuses on how organizational decision-makers can or should regard these various stakeholders strategically. The following research questions were developed in line with the stakeholder perspective. Research question one contributes to the development of descriptive stakeholder theory through the examination of several organizational dimensions and their relations to organizational CSR practices; while

research question two informs instrumental stakeholder theory through the assessment of the implementation of CSR relative to critical measures of CFP.

### **Research Questions**

The researcher addressed the following research questions in this study:

1. Are there differences in average performance of the seven CSR practices (Community Relations, Diversity, Employee Relations, Environment, Product, Corporate Governance, Total CSR), for companies with different levels of selected corporate classification and CFP variables, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?
2. Are there differences in average performance of CFP, in terms of Return on Assets (ROA), Sales, Market Capitalization, ROA Annual Growth, Sales Annual Growth, and Market Capitalization Annual Growth, for companies with different levels of the CSR practices, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?

### **Methodology**

An empirical positivistic approach was utilized for this study of the CSR practices of 353 U.S. based corporations for a period of 12 consecutive years. The original data of the CSR practices, from the period of 1991-2002, were provided by KLD Research & Analytics, and purchased by a member of the researcher's advisory committee. Other data utilized in the study consisted of various corporate aspects, such as corporate financial performance and

corporate classification variables, for the same time period from 1991-2002. All of the latter data is public information and was obtained from the library databases of Texas A&M University. The study designed in an attempt to assess CSR practices from two angles – in a dependent sense with selected CFP and corporate classification variables as independents, and in an independent sense with selected CFP variables as the dependents. The results were yielded by two-factor mixed model ANOVAs with repeats on the second factor for all analyses. All analyses were performed using the statistical package of SPSS, version 15.0.

### **Significance of the Study**

The current study has the potential to contribute to the current CSR literature following a stakeholder theoretical orientation, by examining 353 U.S. corporations over twelve consecutive years, during which 282 (80%) of the companies were ranked among the *Fortune* 500. Specifically, results of the study contribute to instrumental stakeholder theory by providing further clarification on key CSP-CFP relationships, which aid in determining the validity and reliability of selected measures relative to this line of research. Other elements of this study contribute to descriptive stakeholder theory by providing new perspectives regarding the motivations and incentives for CSR; in addition to whether the value of various practices shifted according to time, differences in geographical location of organizations, and other factors. Practically speaking, the results from this study may help executive managers and organizational stakeholders of U.S. companies better understand the CSR environment and the relative impact of CSR-related decisions on important organizational outcomes. In terms of HRD, the current study may aid interested scholars and practitioners within the field who have expressed interest in developing the profession to incorporate socially responsible considerations.

### **Limitations**

As in all studies, there are limitations. The limitations that affected this study mainly involved the usage of the KLD data being operationally defined by KLD for investment advising purposes and not with this type of research in mind. Additionally, the exact methodology for KLD ratings is not known, even though KLD has published a somewhat detailed description of its perceived high quality research methods. Regardless, the KLD ratings have been widely accepted by researchers of CSR and used frequently. Some of the subcategories (strength and concern items) of the six CSR variables were eliminated for use in this study due to abundance of missing data; therefore, each variable was limited in its complete representation of the category. The scale values created to recode the KLD ratings were subject to the researcher's biases. For this study, the six categories of social performance were assumed to be of equal importance, which may not agree with business ideals or common practices. Because there is limited agreement regarding the use of financial and other classification variables and no consensus regarding which variables are critical or key to measuring the CFP and CSP constructs, choices made in the study design are vulnerable to criticism from those scholars interested in supporting alternative forms of data. Additionally, due to the sample size and the type of analyses employed, the problem of not being able to control for additional variables in the models reoccurred because of the limited number of observations that would result in multiple crossing procedures. Finally, the sample of companies for the study was a convenience sample in that only companies with available data for all twelve years were included in study.

### **Organization of the Dissertation**

Henceforth, following the description of the premise, background, and overview of the study, are chapters dedicated to a review of literature of the evolution of CSR as a business phenomenon, the methodology utilized for the study, a full summary of the research results obtained, and conclusions derived from the study results as well as recommendations for further inquiry. In the review of literature within Chapter II, the focus is on the topic of CSR in the broad sense, how it has evolved as a topic for both business and academics, and more narrowly on the attempts in research to relate the constructs of CSR and CFP. Provided within Chapter II is the theoretical framework that was utilized in support of the study. Chapter III is a detailed account of the full research design and the research methods employed within the study. Chapter IV follows with complete summaries of all of the statistical results obtained, and Chapter V is the conclusive chapter that houses a discussion of the results and suggestions for future studies that can attempt to answer remaining research questions.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

The concept of corporate social responsibility (CSR), some possible determinants, and business outcomes associated with this concept were the focus of this dissertation. The study was designed as a means to further explore CSR as a concept that is still emerging from its early origins, with special regards to how it relates to corporate financial performance (CFP) – the latter focus involving another concept that remains questionable and has been evolving for nearly 40 years. The inclusion of examining the associations between CSR and CFP can be supported given the nature of a corporation being publicly held with a required financial obligation towards its owners, which is one form of social responsibility critical to the survival of such an organization.

The theoretical background that was provided in support of this study includes a historical perspective on the development of the CSR construct, along with the perspectives that emerged as key theories for CSR, alternative dimensions within CSR research; in addition to a review of related literature on the linkages between CSR and CFP. The dominant theoretical framework focused on stakeholder theory, as a means of viewing, defining, and categorizing CSR. The next section provides a detailed description of the process undertaken for conducting the literature review, followed by a section on the overview of the presentation of material within the chapter.

#### **The Literature Review Process**

The review of literature was initially conducted with a search for articles within the ProQuest ABI/INFORM Database using the terms of corporate social responsibility (CSR) and corporate social performance (CSP). Additionally, the search was performed requesting



articles from only scholarly, peer-reviewed journals. The articles chosen were from influential journals more highly rated on the Social Science Citation Index, as well as from those most recognizable for CSR research, in addition to more practitioner-oriented journals that include articles on emerging CSR issues. Once the foundational articles on corporate social responsibility were identified through frequent citations in related research, a search for articles that compared CSR and corporate financial performance (CFP) was conducted within the same journals from other databases such as EBSCOhost Business Source Complete, Wiley Interscience, and Wilson OmniFile. Other relevant literature was identified through the trailing of references from articles previously located.

The exploratory nature of the study which encompassed the large and multi-faceted constructs of CSR and CFP supported the need to extend the literature search into a much broader academic focus; thus several journals were considered for the selection of relevant articles. The journals utilized for the literature review included (in alphabetical order): *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Advances in Developing Human Resources*, *American Business Review*, *Asia Pacific Journal of Human Resources*, *Business Ethics Quarterly*, *Business Horizons*, *Business and Society*, *Business and Society Review*, *California Management Review*, *Corporate Governance*, *Harvard Law Review*, *Human Resource Development International*, *International Journal of Lifelong Education*, *International Journal of Organizational Analysis*, *International Journal of Training and Development*, *Journal of American Academy of Business*, *Journal of Applied Corporate Finance*, *Journal of Business Ethics*, *Journal of Business Finance and Accounting*, *Journal of Business Research*, *Journal of Consumer Affairs*, *Journal of Global Business Issues*, *Journal of International Business Studies*, *Journal*

*of Management, Journal of Management and Governance, Journal of Management Studies, Journal of Managerial Issues, Journal of Marketing Research, Long Range Planning, MIT Sloan Management Review, Organization Studies, Performance Improvement Quarterly, and Strategic Management Journal.* Finally, the timeframe for published literature was not limited to the most recent years, due to the long-term evolutionary nature of research on CSR and CFP.

### **Organization of the Literature Review**

The literature review commences with the theoretical framework that was utilized for the study, namely a focus on stakeholder theory for CSR. The remainder of the literature review was written as a chronological presentation of CSR, and how it has evolved overall as a concept. Herein is a discussion of the topic's origins, followed by key perspectives and theories developed to support the general framework, which included a focus on the difficulties in measuring CSR. The KLD database was highlighted as a useful measurement tool for CSR, and several related studies that employed KLD data were presented as part of the review on relationships between CSR and CFP. The presentation of the material then redirects to considerations presented as alternative approaches to CSR, such as other business aspects that might influence or be affected by CSR decisions, as well as the larger view of CSR as it might relate to society as a whole. Finally, the review of literature concludes with newer viewpoints on the topic, how CSR has been examined within the field of HRD, and with a summary of suggested research directions.

## **Theoretical Framework**

Stakeholder theory has emerged as a key perspective for scholars seeking to refine and explore the topic of CSR (Jamali, 2008). Stakeholder theory is useful in viewing CSR because it provides a conceptual framework for discussing the management of multiple interest groups to which corporations are arguably responsible (Carroll, 1991; Clarkson, 1995; Donaldson & Preston, 1995; Freeman, 1984; Wood & Jones, 1995). Additionally, stakeholder theory is comprehensive enough to allow for the study of processes as well as outcomes of the firm (Jones & Wicks, 1999); makes central the element of managerial decision-making (Donaldson & Preston, 1995); and has been credited as the appropriate framework for strategically managing CSR in large firms (Russo & Perrini, 2010). For the reasons previously stated, stakeholder theory has been adopted as the primary theoretical framework for studying CSR in this dissertation. Within the next section is a review of literature on stakeholder theory as it relates to CSR.

### *Stakeholder Theory and CSR*

The initial surfacing of the stakeholder concept in regards to CSR is typically credited to Freeman (1984), whose initial effort was to refocus corporate management's attention on the strategic aspect of considering multiple stakeholders, other than just shareholders, as being able to affect the goals and purposes of the firm. Freeman defined stakeholders as "any group or individual who can affect, or is affected by, the achievement of a corporation's purpose" (1984, p vi). His views expanded the perspective of other stakeholders into societal actors on which corporations should base their strategies, and boldly stated that separating social from economic issues "misses the mark both managerially and intellectually" (Freeman, 1984, p. 40). After Freeman's (1984) introduction of this stakeholder concept and

its possible link to CSP, business and society researchers more increasingly attempted to interweave the two together in their studies of corporate behavior.

In furtherance of Freeman's (1984) claims, Clarkson (1995) also supported the stakeholder concept and generated a framework for "more effectively" analyzing CSP, based on conclusions from a 10-year research program focused on the development and methodologies of CSP research. Clarkson (1995) said that CSP can be managed more effectively by using a stakeholder framework. He emphasized the need to distinguish between stakeholder issues and social issues in CSP research, so as to keep the focus on corporations' relationships with their stakeholders and not society as a whole. Clarkson (1995) proclaimed that managers can understand concepts of stakeholder management more than they can of CSR, which he stated was a concept generated outside of business, lacking clarity and specificity. He also provided a definition of stakeholders and categorized them into primary and secondary stakeholder groups. According to his definitions, primary stakeholder groups constitute shareholders and investors, employees, customers, suppliers, governments, and communities of the corporation. Clarkson (1995) even went on to say that these stakeholders are critical to and are largely interdependent with the corporation and their participation and/or satisfaction is required for survival of the corporation, since he viewed the corporation as a collective system of primary stakeholder groups. His final conclusion was that corporate success could not stand to only be measured from the one point of the shareholder but needed to be expanded to include its primary stakeholder groups, otherwise self-defeating.

Clarkson's (1995) findings were also in line with Wood and Jones (1995), who supported the incorporation of stakeholder theory as the most relevant framework for

assessing CSP, based on the theoretical development of CSP research at that point in time. Wood and Jones (1995) performed a review of previous empirical studies in CSP that were focused on substantiating the socially responsible behaviors of corporations through financial terms, and noted that these studies produced a great mix of results. They attributed the variations in results to methodologies not based on a stakeholder/CSP framework with mismatched variables and predictions. Stakeholder theory was then proposed as “a new theory of the firm” (Wood & Jones, 1995, p. 230-231) for CSP research that would allow for more complex analyses of relationships between companies and society while avoiding the mismatching of variables to stakeholders. Around the same time, Freeman (1994) added to his popularized stakeholder theory the thought that its concept could be used in research to provide more detailed and interesting glimpses into the central themes of business related to ethics.

In a review of literature on stakeholder theory, Donaldson and Preston (1995) articulated the purpose of the theory as being useful for the explanation and guidance of the structure and operation of a corporation, since it views the corporation as being comprised of various groups with different purposes. These scholars examined three aspects of stakeholder theory – descriptive (description of the corporation and its characteristics and behaviors toward stakeholders), normative (explanation of the function of a corporation regarding stakeholders), and instrumental (identification of stakeholder management practices for desired corporate outcomes); and discussed these aspects in terms of distinct approaches for stakeholder management. According to Donaldson and Preston (1995), the base of the stakeholder theory is normative. Furthermore, they addressed the obvious alternative to stakeholder theory, the neo-classical economists’ shareholder only theory, as being “morally

untenable” (Donaldson & Preston, 1995, p. 88), since they believed in the moral obligation of managers to attempt to respond to the various recognized participants of the corporation.

Jones and Wicks (1999) proposed a *convergent* stakeholder theory, as a combination of the normative and instrumental stakeholder approaches described by Donaldson and Preston (1995) that would address stakeholder relationships both morally and practically. Their hybrid theory was positioned as a class of theories, rather than a single theory, and was generated as an attempt to merge differences in the approaches to stakeholder theory from the social science and ethics-based camps of research. These researchers gave the most merit to the instrumental approach for stakeholder theory development, but also stated that good instrumental theory would be grounded in the normative sense and would be incomplete if not. In response, Freeman (1999) argued that instead of convergence among the existing stakeholder theories, a *divergent* stance was more needed for trying to understand organizations and their stakeholder relationships. He criticized Jones and Wicks (1999) contention for a convergent stakeholder theory from the normative and instrumental approaches, since he claimed that the instrumental approach is the most pragmatic and without need of moral justification.

Jawahar and McLaughlin (2001) expanded the descriptive stakeholder theory by including a focus on an organization’s life cycle as a precursor to the importance given to primary stakeholder groups by firms. The comprehensive theory they developed was based on theories from resource-dependency, behavioral decision-making, and stakeholder management; and suggested that the perceived exchange of resources between certain stakeholder groups and the organization would likely drive stakeholder management decisions.

Rowley and Berman (2000) suggested a new direction of research that focused on stakeholder theory as the underpinning for a better understanding of the links between social and financial performance by more narrowly defining the relationships of firms and their stakeholders. Other researchers interested in the stakeholder theory perspective, such as Ruf, Muralidhar, Brown, Janney, and Paul (2001), contended that stakeholder theory addressed the lack of existing theoretical foundation in research analyzing the links between CSP and CFP. Berman, Wicks, Kotha, and Jones (1999) were interested in stakeholder theory development and urged the testing of stakeholder management models, or purposeful management relationships with key stakeholders, as a frame for analyzing the effects on corporate financial performance.

Post, Preston, and Sachs (2002) considered stakeholder theory as a strategic consideration for the management of organizations, which they referred to as “the extended enterprise” (p. 25). In their view, managers of organizations must strive to understand the complete array of stakeholder relationships in order to be strategic in their approaches to value maximization. These authors linked long-term value or sustainability of firms with their ability to recognize and execute their mutual interests with those of key stakeholders from social and political realms, which they suggested included a focus on commitments to values and goals of the society in which the firms operate. The stance of their stakeholder view emphasized relationships more than transactions, of the latter which they concluded should be consistently evaluated to establish the greatest balance among all constituents.

Heath (2006) questioned the stakeholder approach as the most useful for business ethics in an article in which he contrasted the stakeholder approach with a narrower (financial obligation to shareholders) and a broader (market failure of an organization) framework. The

author qualified his discussion on business ethics in terms of “professional ethics for managers” (Heath, 2006, p. 537), and suggested that the nature of stakeholder theory, which focuses on management’s decisions regarding different groups affected by the firm, allows for a bias towards groups that are more organized, narrowly defined, and cooperative with firm. Otherwise, the expansion of the stakeholder focus to include any group potentially affected by the firm would constitute greater concerns for business managers, inclusive of competitors & broader society, which is more closely aligned to that of public policy. Heath (2006) further claimed that the pro-multi stakeholder perspective versus the shareholder-only perspective is often met with conflict in the practical realm of North American corporations, where the premise of corporate responsibility lies in favor of fiduciary obligations to shareholders.

Thus, Heath (2006) presented the market failures perspective as an alternative approach for satisfying corporate social responsibility, that can be viewed as a derivative of the legalistic shareholder-only stance, but with added social and moral obligations. Although Heath (2006) noted the basis of the market failures approach to be a strain of multiple stakeholder theory, he classified market failures with respect to the regulatory environments of firms and market versus administered transactions. This former approach was favored over the latter because of its congruence with the standard practical notion for the profit maximization of shareholders, without the moral disregard for other stakeholders. Moreover, this author contended that the market failures approach is superior to the stakeholder theory approach for corporate social responsibility because it constrains managers’ decisions regarding profit-maximization, while supporting capitalistic goals through moral means.



In contrast, Jamali (2008) considered the stakeholder approach as quite relative for exploring CSR, and presented his arguments for it as a logical framework through the examination of its implementation in selected empirical studies, as well as his own research. One argument for the stakeholder framework is its provision of the organization of multiple groups considered important to a firm, even withstanding a shareholder priority stance, since some researchers have concluded that the ability to increase shareholder wealth involves the consideration of other stakeholders. Furthermore, the author suggested that stakeholder theory is a viable concept that practitioners can easily orient into their business models, while also presenting a usable construct for scholars interested in studying CSR, since the two are highly interconnected. While the study of CSR is concerned with what social responsibility of corporations is, stakeholder theory focuses on how and to whom the social responsibility should be applied. Jamali (2008) supported all three strains of stakeholder theory (descriptive, normative, and instrumental) as useful in research to developing new knowledge on the rationale behind and behaviors of CSR toward primary stakeholders.

Russo and Perrini (2010) compared stakeholder theory with social capital as a means of strategically managing CSR in both large firms and small and medium-sized enterprises (SMEs), and concluded that stakeholder theory is the more appropriate application for large firms. These researchers compared the natural structure of both types of firms, and due to the more formalized nature of large firms with greater diversification and being externally financially based; Russo and Perrini (2010) contended that the stakeholder approach for the strategic implementation of CSR is a good fit for large firms. However, the authors also noted the difficulty of large firms being able to integrate the stakeholder approach into strategic relationships. The suggestion to incorporate greater relational aspects with

stakeholders on the basis of sustainability, such as trust, legitimacy, and openness, was presented as a way for large firms to be developers of social capital through the stakeholder approach.

The current study contains both descriptive and instrumental approaches to stakeholder theory development. The descriptive approach is represented by the examination of the selected corporate classification variables as they relate to the seven CSR practices, or primary stakeholder groups in the study. The instrumental approach is evidenced by the comparison of levels of CSR practices and the resulting financial performances for organizations. The selections of variables chosen to represent various aspects of corporate classifications and financial performance, as well as the variables that represent CSR to various stakeholders are presented within the *Data* section of Chapter III. The next section continues the literature review with a summary of the research on CSR and its key concepts.

### **Introduction to CSR Research**

The array of literature on CSR (and its synonymous terms, namely CSP) is vast, and covers both macro and micro perspectives on the subject. The first recognized definition of CSR was put forth by Carroll (1979; 1991), who positioned CSR or “corporate citizenship” (Carroll, 1998, p. 1) as he later termed it, as a three-dimensional construct with four main responsibilities that societies could expect from corporations: economic, legal, ethical, and discretionary (or philanthropic). Carroll’s (1979) definition provided the framework for describing CSR, but its multiple dimensions and large amount of purported interactions between the dimensions made the model inadequate for empirical analysis of the construct (Clarkson, 1995). Nevertheless, the stage had been set for CSR, and scholars after Carroll remained within his proposed frame of focusing on the four different types of responsibilities

for corporations. Legal responsibilities were hard to negate, and the economic responsibility to shareholders has typically remained as an understood forerunner to the other two—ethical and discretionary. Thus, many scholars made strides to connect the ethical and discretionary actions of corporations (constructed in a normative sense) to positive financial results.

Several years of attempts to prove financial payoffs from various socially defined actions followed (For reviews see: Arlow & Gannon, 1982; Aupperle, Carroll, & Hatfield, 1985; Cochran & Wood, 1984; Griffin & Mahon, 1997; Roman, Hayibor, & Agle, 1999; Ullmann, 1985; Wood & Jones, 1995), while definitions and models of CSR were revised (Carroll, 1999). Wartick and Cochran (1985) are noted to have expanded Carroll's (1979) CSP model by embracing the aspects of economic responsibility, public policy, and corporate social responsiveness and rolling them into a CSP model that focused on the micro-level of the firm and its environment, while maintaining the macro-level theme of the business-society relationship. Furthermore, they discussed the CSP model as a potential paradigm for business and society. Wood's (1991) long withstanding and popular definition focused on outcomes of corporate behavior in terms of performance. In Wood's model, corporate social performance was defined as "a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships" (Wood, 1991, p. 693). The notion of corporate social performance (CSP) over corporate social responsibility (CSR) was further popularized by Wood's work, which then became affluent in resulting studies.

### **Measuring CSR**

An inherent problem with the research on CSR was that it lacked a consistent measurement of social performance (see Roman, Hayibor, & Agle, 1999; Ruf, Muralidhar, &

Paul, 1998; Sharfman, 1996), which caused researchers in business and society to continually disagree on methodological approaches for assessing corporate behavior and its subsequent effects, as well as the results of the assessments (Griffin & Mahon, 1997). By the mid-1980's, after a review of more than a decade of empirical research on CSP, it was determined that new approaches to analyzing CSR were badly needed (Ullmann, 1985). The previous variations in approaches were greatly due to the nature of CSP as a multidimensional construct, making it difficult for researchers to determine an agreed upon set of parameters and also to gather such large amounts of data sufficient for a comprehensive measurement. It was typical for data to be unidimensional, even though CSR was not (Sharfman, 1996). Moreover, data produced from external sources became more commonly used for the performance measure of social responsibilities.

Two databases in particular emerged in CSR research by the 1990's—the *Fortune* reputation Survey ratings (ratings of *Fortune* 500 companies annually produced by *Fortune* magazine), and the ratings produced by KLD Research & Analytics, Inc. (KLD – a social investment advisory firm specializing in ratings of corporate behavior). Both sets of ratings were considered superior to any previous measurements of CSR because they covered social performance criteria for multiple stakeholders, such as customers, employees, communities, and the environment, which were considered to be of prime importance by both researchers and practitioners at the time (Ruf et al., 1998; Szwajkowski & Figlewicz, 1999). In addition, the *Fortune* and KLD databases had great usefulness to CSR researchers because of the size and scope of their evaluations, i.e., annual ratings of hundreds of the largest companies in the U.S. However, the validity of both databases fell into question by CSR researchers, and

several attempts were made to either credit or discredit their underlying methodologies (see Szwajkowski & Figlewicz, 1999, for a review of these studies in a comparative discussion).

Due to the fact that neither the *Fortune* nor KLD ratings were created for use in research employing statistical analysis, Szwajkowski and Figlewicz (1999) decided to perform an empirical evaluation of both databases to determine their validity and reliability. They described both as having face validity due to the high credibility of their raters, and concluded that both are reliable and potentially useful for many research purposes. Paired with their positive remarks of both databases, Szwajkowski and Figlewicz (1999) also warned researchers to use them with caution because of their representation of predefined constructs, in line with Wood's (1995) remarks on the responsibility of scholars to generate valid and reliable measures of constructs in the process of building better theory.

#### *The KLD Database*

Despite the large popularity of the *Fortune* reputation ratings in CSR research (perhaps attributed to the fact that it was the first of its kind to produce a more comprehensive measure), the KLD ratings (which were created almost 10 years later) emerged as the preferred database in studies evaluating multiple variables of CSR. In Wood's (1995) introduction to a research forum on CSP measures in which she discussed both the *Fortune* Reputation and KLD ratings, she proclaimed the KLD ratings as "the best available database on overall CSP" (Wood, 1995, p. 198). Other key CSR researchers made similar comments, such as Waddock and Graves (1997), who stated that the KLD ratings had made "several advances beyond those used in earlier research" (p. 307), and Griffin and Mahon (1997) who opined that KLD offered more objective ratings that were an improvement over the *Fortune* ratings that were decidedly largely perceptual. To further validate the KLD

ratings, Sharfman (1996) put them to the test of construct validity through comparisons with other CSR measures and concluded that KLD does accurately represent the central CSR construct. A few years later, Sz wajkowski and Figlewicz (1999) reported that their tests of the KLD ratings revealed substantial and discernible validity. The KLD ratings soon became the most notable for use in CSR research, and have continued to be utilized until now.

KLD has been performing detailed evaluations of companies since 1991, for the main purpose of providing social performance evaluations to corporate investors interested in supporting various socially responsible initiatives and/or investing in socially responsible organizations. From 1991-2000, KLD evaluated companies listed on the Standard & Poor's (S&P) 500, and expanded their index to include companies on the Russell 1000 in 2001-2002, which has since been expanded further to include organizations on the Russell 3000. The CSR data produced by KLD are categorized within seven social domains of environment, community, diversity, employee relations, product, corporate governance, and human rights; as well as several controversial business issues, such as abortion, adult entertainment, alcohol, contraceptives, firearms, military, gambling, nuclear power, and tobacco. Most of the CSR research performed using the KLD data has utilized some or all of the seven social dimensions rather than the controversial business issues, since the seven represent specific stakeholder groups that are considered to be core for businesses. Moreover, CSR ratings from KLD have been manifested as the focus of both independent and dependent variables in CSR research, and a large proportion of the research that incorporated the KLD data included an emphasis on the associations between the variables representing CSR and the financial performance for organizations. For a list of published studies with the KLD ratings, see the bibliography produced by KLD in Appendix A. Note that KLD ceased

the updating of this list in 2006. Those considered to be relative studies for this dissertation will be discussed throughout the remaining sections of this chapter. Within each of these selected studies, the KLD data were employed uniquely, with no standardized usage of the ratings to represent CSR.

### **Linking CSR with CFP**

In a premier longitudinal study designed to test the empirical relationships between the social and financial performances of large U.S. corporations, Preston and O'Bannon (1997) found no significant negative social-financial performance relationships and strong significant positive correlations, in favor of the stakeholder theory for corporations. These researchers empirically explored many possible relationships between CSP-CFP, including causality and direction, using contemporaneous and lead-lag calculations for both sets of variables. Within their examination, they included the specific aspects of managerial opportunism and available funds (slack resources) to explore CSP-CFP relationships.

CSP data from 1982-1992 was taken from the *Fortune* reputation ratings on three social performance dimensions representing customers, employees, and the community; while the variables of return on assets (ROA), return on equity (ROE), and return on investment (ROI) were selected from the same time frame to measure CFP for their study on 67 of the largest firms measured by Fortune. Results represented 270 correlations performed on the various combinations of social and financial performance variables, which all evidenced a positive relationship between CSP and CFP, based on the lack of even one negative correlation. Furthermore, when the financial variable of ROA was utilized in the lead-lag sense, it had the highest correlation which suggested support for the hypothesis on available funds leading to better CSP.

As noted earlier, much of the popular research in CSR since the 1970s had focused on the relationships between social and financial performance of companies to produce support for expenses on CSR practices. Around the time of the turn of the century, interested scholars (McWilliams & Siegel, 2000; Roman, Hayibor, & Agle, 1999; Rowley & Berman, 2000) began concluding that much of the research was flawed and did not portray a completely accurate picture of the social-financial performance link. Roman et al. (1999) reconstructed a table of previous related research that they believed incorporated sound measurements of CSR and CFP, based off of Griffin and Mahon's (1997) earlier construction, and presented optimism for a significant positive correlation between the two constructs, although with the disclaimer that the issue was still not a closed one. Roman et al. (1999) were attempting to present a more sound representation of the CSR and CFP relationship based on advances in the research field, and cited the results from four recently published "major" (p. 109) studies (see Frooman, 1997; Griffin & Mahon, 1997; Preston & O'Bannon, 1997; Waddock & Graves, 1997) that supported their optimistic conclusions.

However, McWilliams and Siegel (2000) did not share the same type of optimism, and instead said that there had been a misspecification in past empirical studies that analyzed the impact of social performance on financial performance. According to their research, CSR and CFP were highly correlated with the variable R&D investment (a variable they noted as having been shown to be a determinant of profitability), causing them to believe that previous CSP-CFP research that excluded this variable overstated the financial impact from social investment, or CSR. The results of their study also showed that the effect on profitability (CFP) was neutral when R&D investment was included in the equation, and concluded with caution to researchers on excluding important variables in their attempts to



explain the financial performances of firms. The results and conclusions of McWilliams and Siegel (2000) agreed with those of other business and society scholars who represented the perspective that more refined research was needed in exploring the relationships among the two grand CSP and CFP constructs.

Two different theories about the relationships of these grand constructs that emerged included the slack resources theory (McGuire, Sundgren, & Schneeweis, 1988; Preston & O'Bannon, 1997; Ullman, 1985; Waddock & Graves, 1997) and the good management theory (Waddock & Graves, 1997). These theories helped to expand the thinking on the linkages between CSP and CFP by providing a sense of direction for causality. The slack resources theory predicted that organizations with excess discretionary funds or capital gains are more likely to subsequently make decisions to engage in discretionary behaviors, such as the investment in stakeholders through CSR (CFP yields CSP). In the reverse sense, the good management theory proposed that managers might view CSR as an investment opportunity for strengthening certain stakeholder relationships that will in turn enhance organizational financial performance (CSP yields CFP). The good management theory was a spin off of Jones' (1995) instrumental stakeholder theory which was used to argue that a competitive advantage for a firm can be gained through the establishment of mutual trust and cooperation between the firm and its primary stakeholders, such as shareholders, employees, and other contracting agents. Orlitzky, Schmidt, and Rynes (2003) incorporated a discussion of these previous theories in their meta-analysis focused on shedding more light on the general relationships between the CSP and CFP constructs, in which they hypothesized and tested bidirectional causality existing between the two. Their results supported this hypothesis with

findings suggesting a “virtuous cycle with quick cycle times or concurrent bidirectionality” (p. 417).

Peters and Mullen (2009) examined the longitudinal effects of CSR on CFP, of which their results supported the notion that practicing CSR over time leads to increased and enhanced CFP. The goal of their study was to analyze the CSR-CFP relationship longitudinally, by encompassing a cumulative measure of CSR based on multiple years of CSR performance and relating it to subsequent years of a firm’s financial performance. The researchers incorporated 81 corporations from the top 100 of the 1996 *Fortune 500* list for their study sample. They aggregated data from 1991-1996, provided by KLD in the five categories of employee relations, product, diversity, community relations, and environment to represent a composite construct of CSR, and the variable of return on assets (ROA) from 1992-1996 to represent CFP. They also incorporated the variables of industry (manufacturing versus services) and firm size (measured by total assets) in their model. Five multiple regression analysis models were conducted, of which all were statistically significant, indicating that the cumulative effects of CSR to CFP are positive and increase with time. However, the researchers noted a hint of a diminishing rate of return from the cumulative effects of CSR, and thus suggested for firms to consistently re-evaluate their CSR practices for a more strategic and sustainable approach.

#### *Meta-Analyses of CSP-CFP*

Frooman (1997) took a twist from the traditional CSP-CFP research that had focused on corporations acting socially, and instead performed a meta-analysis of CSR event studies on the socially irresponsible actions of corporations. His intent was aimed at revealing the financial effects, which he measured in stock price performance, for corporations that did not

seek socially responsible behaviors. The results of Frooman's (1997) meta-analysis provided evidence that social responsibility is relevant to business, so much that a lack of it could contribute to decreased shareholder wealth, deeming socially responsible behavior as almost necessary acts of self-interest for corporations.

There have been several researchers who have analyzed the CSP-CFP links that mostly found significant positive relationships between the two constructs that will not be highlighted in this paper due to the extensive focus it would entail. In providing justification for the former part of the previous statement, Orlitzky et al. (2003) were cited for their meta-analysis performed on studies that investigated the relationships between corporate social and financial performance dating back 30 years. The meta-analysis included 52 studies that employed various definitions and measures of both CSP (based on processes, outcomes, principles, reputation) and CFP (accounting, market-based, and perceptual measures). Within the meta-analysis, data from KLD were used as the measure of CSP in only six of the studies examined, and the variable of return on assets (ROA) was the variable used most frequently for the measurement of CFP, in 20 of the 52 studies.

As previously noted, the results of the meta-analysis supported the significant positive correlation (corrected score of .36) between CSP and CFP, with operationalization of the constructs influencing the association, and with more support for a relationship with accounting-based CFP measures versus market-based ones. An additional finding was that CSP, in the form of corporate environmental performance only, had a lower correlation with CFP than all other measures of CSP, with results suggesting consistency across various industry and study contexts. Their findings revealed a large span of cross-study variances, and suggested that studies which used more fine-grained analyses of CSR and CFP versus

composite measures provided richer results. Moreover, Orlitzky et al. (2003) indicated that further lines of inquiry should be conducted to account for previous study variances, and also cautioned against abandoning these lines of research based on what they considered to be flawed recommendations from past reviews, such as from Rowley and Berman (2000).

In another meta-analysis, Wu (2006) assessed the relationship between CSP and CFP from 121 empirical studies resulted in an average effect size of .166, indicating a strong significant positive relationship between the two constructs. In this meta-analysis, firm size was also included as a focus, as the researcher attempted to measure the associations of firm size with both CFP and CSP. Similar to in the meta-analysis performed by Orlitzky et al. (2003), Wu's (2006) meta-analysis included an array of variables representing the dimensions of CSP, CFP, and firm size. For CSP, three aspects were included: corporate disclosure of social concern matters, specific corporate actions (philanthropy, social program, or pollution control), and corporate reputation ratings such as those from Fortune, KLD, Moskowitz, and Business 100. CFP was classified into the four categories of profitability measures (return on equity, return on sales, return on investment, earnings per share), utilization of assets (return on assets, asset turnover), market-based (stock performance, market return, market to book value, and others), and growth measures (average profitability and average asset utilization). Variables used to represent firm size were total assets, total sales, and number of employees.

The results of the meta-analysis revealed the strongest significant association between CSP and CFP when reputation-based reputations were utilized as the CSP measure, and even greater so with the *Fortune* ratings (versus those from KLD). Moreover, market-based CFP measures had the weakest significant relationship with CSP than the other three types of

measures considered; although all measures of CFP had a significant positive relationship with CSP. In terms of firm size, the support for a relationship between firm size and CFP was not generated, irrespective of the combination of variables utilized for CFP and firm size. A significant positive relationship between firm size and CSP was detected, but these results were deemed inconclusive due to the suggestion of statistical error. Overall, Wu (2006) concluded that high levels of CSP incur minimal costs to the firm, and could even lead to other firm benefits. Additionally, he posited that the results of the reputation ratings (CSP measure) having the strongest relationship with CFP may be based upon a strong weighting of reputation due to a firm's financial position, and pointed out the limitation of the studies in the analysis focusing mainly on large corporations.

#### *CSP-CFP Research and Development of the Stakeholder Perspective*

Berman et al. (1999), as their cited predecessor Freeman (1984), viewed stakeholder management in terms of decision-making related to resource-allocation and corporate strategy, and presented two models for testing, the “strategic stakeholder management model” (p. 492) and the “intrinsic stakeholder commitment model” (p. 494). The former model was used to support instrumentally managing stakeholders in a strategic sense to ultimately maximize profits and the wealth of shareholders, thus, allowing the management of stakeholders to be part of corporate strategy without defining it. On the other hand, the latter model was used to represent the intrinsic values of firms through the placement of ethical considerations for stakeholders as a forerunner to creating firm strategy for purposes of increased financial performance (Berman et al., 1999).

These researchers used KLD ratings data from the years 1991-1996 for 81 of the top *Fortune* 500 firms in 1996 to test CFP outcomes from relationship practices from the two

previously described stakeholder orientation models with the key stakeholders of: customers/consumers, employees, communities, and the environment. Their results did not support the intrinsic stakeholder commitment model, which purported the impact on financial performance from moral commitments of managers to key stakeholders influencing more ethical decision-making in the formulation of firm strategy.

Berman et al. (1999) did not negate the importance of firms establishing and maintaining positive relationships with key stakeholders, as they believed this could enhance their profitability. Two variables, employee relations and product safety/quality, proved to have a direct impact on firm financial performance in their study, and several other interaction effects from the sets of strategy and stakeholder relation variables were significant. However, it should be noted that Berman et al. (1999) used a single accounting variable, return on assets (ROA) to represent the financial performance of the firms in their study. They concluded that considerations involving resource allocations and stakeholder relationships “are inseparable” (p. 503), because decisions of resource distribution in the support of certain stakeholders together affect financial performance, since a firm’s competitive advantage could ultimately be influenced by the strength of its relationships with key stakeholders.

Agle, Mitchell, and Sonnenfeld (1999) investigated the three attributes of legitimacy, urgency, and power of stakeholders to compare stakeholder salience, CEO values, and corporate social and financial performance. Specifically, they were interested in whether all three attributes were positively related to stakeholder salience for the stakeholder groups of shareholders, employees, customers, governments, and communities; how CEO values would affect their own perceptions of the three attributes and how they related to stakeholder

salience for the same groups; whether the perception of stakeholder salience by CEOs would be positively related to CFP; and how differences in CEO values would be related to CSP and CFP. In the study, the researchers used 1996-97 KLD data to represent CSP in the four categories of employee relations, products, community relations, and environment (treatment of women and minorities, or diversity, was collapsed with employee relations), while CFP was measured by the accounting variables of return on assets (ROA) and return on equity (ROE). The three variables of legitimacy, urgency, and power were constructed by two of the three researchers from a previous study, and further developed for use in the study at hand. CEO values were categorized as self-interested and other-regarding, and were measured using two previously accepted developed instruments.

Regression analysis was used to assess the relationships between the three attributes of stakeholder legitimacy, urgency, and power (individually and cumulatively) to stakeholder salience, from which strong support was found as evidenced by significant relationships across most stakeholder groups. Additionally, they found significant effects on employee and customer salience for interactions between CEOs' other-regarding values and stakeholder attributes. Community salience was found to be related to community performance, but was the only significant relationship among the tests for stakeholder salience and corporate social performance. Community performance was also found to be related to CEOs' discretion toward CSP. No significant results were found for CEO values moderating a salience-corporate financial performance relationship.

The findings of the study by Agle, Mitchell, and Sonnenfeld (1999) revealed that there may be a priority aspect associated with the attention given to multiple stakeholders, and their results suggested greater importance placed on shareholders, employees, and

customers. However, the researchers noted that much more work would need to be conducted to better understand the detailed relationships among CEO values, the stakeholder attributes of legitimacy, urgency, power, and salience, and corporate social and financial performance.

Hillman and Keim (2001) recognized the increased attention on stakeholder management in CSP-CFP research and used it as a framework for their analysis of the relationships between stakeholder management, shareholder value, and social issue participation (a term they used to represent the support of various social issues other than those related to primary stakeholders by a corporation). These researchers hypothesized that stakeholder management leads to improved shareholder value creation, while social issue participation leads to decreased shareholder value creation. They used social responsibility categories from the KLD ratings data to represent the variables stakeholder management and social issue participation, and tested their relationships to the multiple financial performance variables, including return on assets (ROA), return on equity (ROE), the ratio of market to book assets (Also known as the Q ratio), and return on market value-added (MVA). MVA was chosen as the primary focus for their study over the commonly used accounting measures of ROA, ROE, and the Q ratio, because the researchers believed it to be more representative of shareholder value creation, and a longer-term measure than what the typical accounting measures could provide. Moreover, Hillman and Keim (2001) explained that accounting measures are less useful in assessing the intangible results inherent with firm-stakeholder relationships, e.g. value created for shareholders, since accounting measures generally assess the utilization of tangible assets within a short-term period.

In addition to their analysis of the stakeholder management and social issue participation variables, Hillman and Keim (2001) also analyzed the relationships between



MVA and the individual categories of the KLD ratings that represent the primary stakeholder groups, i.e., community relations, diversity, employee relations, environment, and product. The results of their study provided evidence toward support for their hypotheses of increased and decreased shareholder value creation for stakeholder management and social issue participation, respectively. Furthermore, they found that the KLD variable, community relations, was most closely linked to increased shareholder value creation when compared with the other individual four KLD variables, or dimensions. However, no significant results were found when they used the other financial performance variables commonly used in research on corporate social performance (ROA, ROE, and the less common, market-to-book assets). The researchers noted a possibility for the inconsistent results as stemming from the operational construction of the KLD dimensions, and suggested further research involving the usage of a disaggregated constructs of CSP and stakeholder management to obtain more fine-grained results.

Bird, Hall, Momentè, and Reggiani (2007) also noted the multiple stakeholder perspective as a supported and viable context for assessing links between CFP and certain CSR activities, and argued that a market solution likely exists to the long debated conflicts for managers trying to balance the interests of shareholders and other corporate stakeholders. These researchers used enlightened stakeholder theory (Jensen, 2001), which is used to suggest that acting socially responsible to multiple stakeholders for increased long-term firm value, as a theoretical construct for their study. In addition, Bird et al. (2007) highlighted the market values of corporations as preferred measures of financial performance over accounting variables, given their focus of narrowing the tensions between individual versus multiple stakeholder satisfaction. In this substantial and methodologically robust study, the

researchers used ratings from KLD for years 1991-2003 on the dimensions of: community relations, diversity, employee relations, environment, and product, and analyzed each dimension separately as well as in a composite form. Furthermore, they took a more deconstructed approach to examining the CSP dimensions by analyzing each from a positive (CSR activities considered to be strengths) and negative (CSR activities considered to be concerns) standpoint, in relation to five dependent variables: the excess return on stock for one year, two years, three years, market-to-book ratio, and price-to-earnings ratio. The basis for isolating the strength and concern CSR activities was taken from Frooman's (1997) meta-analysis which showed decreased market valuation for firms that had engaged in illegal or illicit social behavior (or CSR concerns).

Bird et al. (2007) found consistent results that supported strong employee relations, diversity practices, and meeting environmental regulatory standards for corporations; although it is interesting to note that practices going above and beyond standards for the environment in addition to excess support for community relations were negatively associated with market valuation. Moreover, an analysis that compared results from two time periods within the data (1991-1996 and 1997-2003) revealed stark differences in the market value returns related to the individual CSR strength and concern categories (with the exception of environmental concerns leading to decreased market valuation), indicating that the emphases or perceptions of what CSR practices are important change over time. According to their study, the areas of employee relations, diversity, and the environment generated the biggest reactions from the market than the other areas in the more recent years (Bird et al., 2007).

Van der Laan, Van Ees, and Van Witteloostuijn (2008) incorporated the stakeholder theory perspective in an “extended” form, in their study of the CSP-CFP relationship on two separate groups that they divided into primary (private) and secondary (public) stakeholders, since they believed the nature of the relationship of the stakeholder to the firm would influence any relationship between CSP and CFP. This division of groups was based on Clarkson’s (1995) recommendation to categorize corporate stakeholders into primary versus secondary, although the composition of the groups varied for Van der Laan et al. In the study, they hypothesized that CSP concerning primary stakeholders would be unrelated to CFP, and that CSP for secondary stakeholders would be related to CFP.

These researchers utilized CSP data from KLD that included strength and concern ratings on seven dimensions of CSP (community relations, diversity, employee relations, environment, product, corporate governance, and human rights), that they viewed were representative of the primary stakeholder groups of customers, employees, and investors; and the secondary stakeholder groups of community, human rights, and the environment. Additionally, they further categorized the seven dimensions into “good” and “bad” CSP by taking aggregates of the strength and concern items per KLD dimension, in order to compare the different CSP impacts on CFP measured by return on assets (ROA) and earnings per share (EPS).

Van der Laan et al. (2008) hypothesized that CFP would be affected in a greater way by negative CSP than positive CSP. The study included 734 S&P 500 corporations with observations ranging from one to all years from 1997-2002. Other variables that these researchers utilized in their study as controls included the debt-to-equity ratio to capture a firm’s relative debt, and firm size measured by the firm’s number of employees. Their results

were calculated using hierarchical regression models, which yielded little or no support for their two hypotheses about primary and secondary stakeholder relations to CFP, but strongly supported the hypothesis that “bad” CSP would have a greater effect on CFP than that of “good” CSP. This last result was more consistent with the case of primary stakeholders.

Other results from the study revealed a relationship with firm size and CSP, consistent with findings from previous research. An interesting conclusion by the researchers highlighted possible biases relative to the age and size of the corporations in the sample (being that they were generated from the S&P 500), and suggested that these factors relative to larger and older corporations could influence CSP due to the subjection of more public scrutiny and expectations.

### **Alternative Approaches to CSP Research**

Margolis and Walsh (2003) argued that the seemingly persistent economic focus within the research on CSP-CFP distracts from broader investigations on business and society, since research goals and objectives are commonly driven by the need to satisfy certain economic assumptions. According to their analysis of 127 empirical studies on the CSP-CFP links that were selected from 30 years of research, 86% of the studies utilized CSP as the predictor variable(s), while only 17% focused on CSP as the dependent(s). Instead, these researchers called for more descriptive research from a normative perspective to focus on how corporations have or could have an expanded role in the improvement of some of society’s problems. The suggested aim was not targeted against the business case of CSR, but rather meant as an alternative focus that can ultimately act in a complementary manner with the need to satisfy the financial premise (Margolis & Walsh, 2003).

Additionally, Walsh, Weber, and Margolis (2003) surveyed the entire research scene from publications produced by the Academy of Management from a recent 40 years, which included 30 years of studies on the relationships between CSP and CFP, and discovered that the number of studies has been more heavily weighted on the economic versus the social objectives relative to business and society. They then highlighted the foundational premises of the academic discipline and stressed the social emphasis that should be more present in the field's research.

### *A Call for the Expansion of CSR Research*

Although it is difficult for organizational scholars to direct the attention away from the economic impacts (or the financial performance of firms) of CSR in the research, prominent scholars more specifically concerned with business-societal welfare and other firm-stakeholder aspects do exist (e.g., Carroll, 2000; Griffin, 2000; Rowley & Berman, 2000; Swanson, 1999). Rowley and Berman (2000) provided their bold argument of redirecting the research focus from making a business case for CSP to building more theory on various operational constructs of CSP, such as considering how socially responsible firms should be, and what other factors (besides CFP) influence firm behaviors. In addition, these researchers stated that due to the “number of variables and complexity of relations among them...a universal answer does not exist” (p. 406) for the links between CSP and CFP, and suggested examining the conditions of their relationship, or the underlying variables that contribute to positive or negative associations instead.

In response, Griffin (2000) supported the questions about the directions of research for CSP by Rowley and Berman (2000), and added that research in related disciplines (e.g., marketing and human resources/relations) that more narrowly focus on specific

organizational policies, practices, and procedures “can lead to a broader, richer, and more systematic understanding of the complex CSP construct” (p. 479). Swanson (1999) called for more *coherent* theory development in CSP research, and addressed the need for integration of the normative (what firms should or should not do) and descriptive (what firms actually or can do) approaches to business and society research. Griffin (2000) proposed a research model that focuses both on the external firm factors (incentives, expectations for operations) as well as internal firm dynamics (processes of responding to these incentives and expectations).

Moreover, the notable CSR scholar, Carroll (2000) presented his views on the advancement of the CSP construct reminding scholars that both business and society are high level units of analysis and that only incremental progress should realistically be expected, although he concurred with Wood (2000) that better theory was needed. Carroll (1999) predicted that public expectations for business practices would support the continual livelihood of research on the CSR concept regarding business and society relationships.

### *The Re-emergence of the Corporate Citizenship Concept*

Around the same time of these discussions, there was a swift advancement of the corporate citizenship perspective, relative to CSR. In a special issue of *Business and Society Review*, several authors (Fombrun, Gardberg, & Barnett, 2000; Googins & Rochlin, 2000; Marsden, 2000; Waddock & Smith, 2000) contributed their takes on corporate citizenship for the new millennium. In this issue, the authors collectively described some of the newer approaches and strategies that corporations were undertaking as contributors within society, in lieu of corporate citizenship being an old concept.

Fombrun et al. (2000) suggested that good corporate citizenship could generate gains in reputation, and also potentially reduce the risk of negative reputations through consistent and long-term commitments to key stakeholders. Googins and Rochlin (2000) also emphasized the importance of business relationships in their paper, which they discussed in terms of partnerships among government, businesses, and the civil sector for the sustainability of community development. Waddock and Smith (2000) expanded the thoughts on business-society relationships to include considerations of how the good corporate citizenship concept might be utilized by organizations in mitigating some of the additional risks associated with global operations. Marsden (2000) also recognized the need of inclusion of a global perspective in viewing corporate citizenship, given the increasingly common practice of corporations engaging in global business partnerships. In discussing the multi-faceted dynamics that transnational corporations must face, Marsden (2000) presented the concept of the *triple-bottom line*, or a focus for organizations to manage their social, financial, and environmental performances as one.

Later, the idea of corporate citizenship was reintroduced by Jeurissen (2004) and Crouch (2006), in which both authors stressed the importance of observing firms for their roles in society, but also as participants that receive actions from external constituents in their environments. The examples these authors gave of external forces included various forms of political, social, and economic governance (and cultural dimensions added by Jeurissen), which can have strong influences on a firm's behaviors and choices. Crouch (2006) negated the need for a separate stakeholder concept in CSR research in his approach to developing the study of CSR by expanding the view of firm interactions to a wider context, although Jeurissen (2004) discussed stakeholder relationships in terms of "partnerships" (p. 89). Both

authors addressed the CSR and profit maximization dilemma with a common good approach and the suggested incorporation of the following considerations: the interactions between firms' dual roles of market actors and recipients, employee and investor preferences for CSR practices, and the long-term interests of corporations and consumers for sustainability.

### *Multivariate Advances in CSR Research*

#### **Determinants of CSR**

Several advances in CSP theory have been made, with scholars from many disciplines examining the different aspects possibly related to CSP, which often include strategic business interests or some aspect of CFP. Stanwick and Stanwick (1998) embarked upon this journey by employing eight variables to relate to CSP that included firm profitability, charitable giving, environmental emissions, women and minority members on the board of directors, women and minority members within the firm, and annual salary and monetary bonus of the CEO.

Other researchers have utilized similar predictor variables in their studies of the dynamics of CSP, such as geographical diversification (Brammer, Pavelin, & Porter, 2006; Hood & Logsdon, 2002; Maignan & Ralston, 2002; Scholtens & Dam, 2007), diversity of corporate boards (Coffey & Wang, 1998; Webb, 2004), CEO compensation (McGuire, Dow, & Argheyd, 2003), financial slack resources (Preston & O'Bannon, 1997; Seifert, Morris, & Bartkus, 2004; Waddock & Graves, 1997), managerial control via stock ownership (Coffey & Wang, 1998); and firm size (Wu, 2006).

**Geographical Diversification.** The studies cited for this variable all included a multinational perspective, but collectively housed dimensions relative to the variables chosen



for the current study to represent geographical diversification/location. The focus for the papers presented by Hood and Logsdon (2002) and Scholtens and Dam (2007) was on business ethics, rather than CSR explicitly; and each incorporated Hofstede's (1980, 1991) cultural dimensions in their multi-firm/country comparisons. In the application of these cultural dimensions within the examination of the cultural values of managers from the three NAFTA countries, Hood and Logsdon (2002) proposed that differences would exist across geographical locations with regards to the treatment of low-level employees. In the study by Scholtens and Dam (2007), the researchers analyzed ethical policies of firms in industrialized countries to determine if culture is a significant factor in explaining country differences. In their study, firms were classified according to the country in which they were headquartered; and the findings provided support for this aspect of geographical diversification as a significant factor in the comprehensiveness of its ethical codes, governance of bribery and corruption practices, and its human rights policies.

Brammer, Pavelin, and Porter (2006) found significant contemporaneous positive relationships between some aspects of CSP and varied geographical diversifications, in their study where they measured the geographical diversification of large UK firms by the number of countries in which the sample organizations had operations (or the country where the organization was incorporated if the latter data was not available). Their CSP data was taken from a third-party research service that specializes in the production of CSP ratings for UK organizations. Results from this study included no impact from geographical diversification on employee-related aspects of CSR, and a stronger effect of geographical diversification for community and environmental activities in most regions. Moreover, the researchers

substantiated on of their hypotheses that external pressures from region-specific stakeholders influence the CSP of firms.

Similar results were found by Maignan and Ralston (2002), who conducted a study on the differences in CSR reporting of large corporations in the U.S. and Europe (France, the UK, and the Netherlands). These researchers utilized the websites of firms to examine the justifications for and the targets of CSR by the selected businesses in the different locations (In the current discussion, results of their study will be presented mostly from the U.S. perspective, since U.S.-based firms comprised the current study population).

According the study, the U.S. firms appeared the most ambitious in their self-portrayal as good corporate citizens, in comparison to firms from the other three regions. Interestingly, U.S. firms also seemed to be more deeply engaged in CSR practices that contributed to societal welfare, versus their core business operations. The stakeholder issues that emerged as the most dominant for U.S. firms were in the categories of community and environment, while less to customers (products) and employees. In addition, the study findings revealed that only 11.3% of U.S. firms' reports discussed CSR through a stakeholder-driven approach, but rather, 58.5% explained their involvement in CSR as part of their core values.

**Diversity of Corporate Boards of Directors.** An impact of the diversity of corporate board structures on CSP has been widely accepted (Coffey & Wang, 1998), but the specifics in terms of certain components of board diversity and the related impacts have been in question. The studies by Coffey and Wang (1998) and Webb (2004) helped to fill this gap by examining the relationships between various aspects of corporate board structures (i.e., proportions of insider versus outsider directors, women on boards, stock ownership, and

CEO duality) and corporate social performance. Although the measurement for the diversity of corporate boards in this study only shared the common factor of women on boards, the two studies presented within this discussion had findings relative to the social impact from the presence of women on corporate boards.

In the study by Coffey and Wang (1998), CSP was measured in terms of corporate philanthropy or charitable giving for selected *Fortune 500* firms. The proportion of women on these corporate boards was employed as one factor of board diversity, which was not found to have a significant relationship with CSP. Although, the researchers noted that the relationship was “nearly positively significant” (p. 1600); which they believed should not be overtly ignored, since it perceivably revealed differences in the effects of other aspects of diversity for CSP.

Webb (2004) also utilized the proportion of women on corporate boards as a classification variable in her study in which she compared two different samples of socially responsible versus non-socially responsible firms. The socially responsible firms were identified by an index of socially-screened firms created by KLD. Additionally, this researcher employed the dependent variable of an overall KLD score taken from ratings in the social performance categories of community, diversity, employee relations, environment, and other stakeholder issues. Relative findings from her study were that the boards of the socially responsible firms typically had more women than the non-socially responsible ones; as well as, the proportion of women on boards were found to be directly related to the KLD score.

**CEO Compensation.** The attention to CEO compensation and its relationship with CSR was provided by McGuire, Dow, and Argheyd (2003) based on their presumption that

compensation and other incentives can be used by corporate owners and directors to influence managerial decisions, namely those relating to social performance. The researchers examined multiple variables representing CEO incentives (salary, stock ownership, bonus payments, and other long-term incentives) in their study. CSP was segregated into two dimensions of weak and strong social performance, which were measured as an aggregate of four dimensions from the KLD social performance ratings – community, employee relations, product, and environment.

The results from a regression analysis revealed that high levels of salary and long-term incentives had a positive association with weak social performance, while neither had a significant relationship with strong social performance. The latter finding lent support for the argument that the inclination toward strong social performance may be more a result of managerial values or other cultural influences, rather than the financial incentives included in their study. However, their use of an aggregate measure of CSR, rather than viewing relationships among the various CEO incentives with individual social domains, could have attributed to the lack of significant findings regarding strong social performance.

**Slack Resources.** The term, slack resources, when discussed for corporations could include the availability of financial as well as non-financial resources that may be used in a discretionary sense by managers; however, the focus on slack resources in the current study is only in the financial sense.

Waddock and Graves (1997) employed three financial variables of return on assets, return on equity, and return on sales as slack resource measures in their study examining the links between corporate social and corporate financial performance. In this study, the researchers used a constructed index of CSP from eight dimensions of KLD data

(community, employees, environment, product, diversity, and three controversial business issues) as the dependent variable, from which to compare to data from the slack resources variables in the previous year for almost all S&P 500 firms in 1990. After controlling for the variables of firm size, debt level, and industry and inserting all variables into a regression analysis, the researchers found that CSP was positively and significantly correlated with all three variables representing slack resources (or financial performance). Moreover, the strongest relationship was between CSP and the variable of return on assets.

It should be noted that their study also examined CSP as an independent variable with financial performance (same three variables) in the dependent position; from which they found general support for the relationship in this direction, although less than when CSP was measured in the dependent sense. These findings caused the researchers to consider the question of the existence of a “virtuous cycle, or simultaneous and interactive impact” (p. 314) between the two types of performances.

The relationship of slack resources and a form of CSR was also questioned in a study by Seifert, Morris, and Bartkus (2004), in which they examined the association between the cash flow and corporate philanthropy of 157 firms from the *Fortune* 1000 list from 1998. Both of the latter variables were chosen based on them being highly discretionary, and also because cash flow was believed to be a better indicator of actual slack resources than profit margins. The researchers measured corporate philanthropy in terms of monetary contributions to charities and other gifts to charitable foundations. Corporate philanthropy is one form of CSR, and is relevant to the current study because of the nature of the composition of the KLD community relations variable, which employs a few aspects of charitable giving.

Like Waddock and Graves (1997), Seifert et al. (2004) were not only interested in the associations between these dynamics of CSP and CFP, but also the direction of any relationships. That is, they positioned corporate philanthropy as both the independent and dependent variables in their analyses. The researchers controlled for size and industry and utilized structural equation modeling in their study. From the results, they found no support for their hypothesis that corporate philanthropy would affect financial performance; however, they did find a significant positive impact from a firm's cash flow to its charitable giving.

The results from both studies (Seifert et al., 2004; Waddock & Graves, 1997), although containing different measures of corporate social and financial performance, generated more support for the slack resources theory than the theories that acting socially responsible contributes to better financial performance.

**Managerial Control via Stock Ownership.** The study by Coffey and Wang (1998), which was presented under the sub-section on the diversity of corporate boards of directors above, also included a focus on the stock ownership of executives as a facet relative to CSP. These researchers precluded that managerial control, or the ability of management to affect board decisions, would be related to corporate philanthropy. They measured managerial control by the number of stocks owned by directors (insiders and outsiders) relative to the total number of shares outstanding. The study results provided support for a positive relationship between charitable giving and the percentage of stock owned by inside directors, which led to the researchers' conclusion that greater support existed for the managerial control versus the diverse board approach that were employed in their study.

**Firm Size.** The relationship of the variable of firm size with CSP was previously presented in the discussion of Wu's (2006) meta-analysis, under the sub-section on meta-analyses of CSP-CFP above. In that discussion, it was noted that results of the analysis suggested a positive relationship between the two, but that ultimately the results were deemed inconclusive.

### *Supply and Demand Models for CSR*

McWilliams and Siegel (2001) outlined a supply and demand model for CSR, which incorporated the variables of firm size, level of diversification, research and development, advertising, government sales, consumer income, labor market conditions, and stage in the industry life cycle. These researchers differentiated between two major sources of demand for CSR from a firm as consumer demand versus other stakeholder demand; and hypothesized that research and development, advertising, and consumer income would affect consumer demand for CSR, while government sales and labor market conditions would affect demand from other stakeholders. Further, they conjectured that firm size, level of diversification, and stage in the industry life cycle would be related to the supply of CSR from firms. They suggested that this framework could be used by managers to perform a cost-benefit analysis to determine an *ideal* level of CSR, which can satisfy the desires of multiple stakeholders while still maximizing profits. Moreover, they asserted that firms which supply CSR versus those which don't will have the same rate of profit or financial performance, even though the provision of CSR will incur higher costs. This assertion was based on the point of equilibrium that can be reached in a supply and demand model.

Mackey, Mackey, and Barney (2007) also theorized a supply and demand model for CSR and financial performance, but theirs focused on investor influences and various

approaches to corporate strategies for value creation, specifically the association between the supply of and demand for socially responsible investment opportunities and a firm's market value. From their model, the researchers concluded that the market value of a firm can be increased through the provision of CSR activities, even though the cost of the activities may reduce the firm's current cash flows, due to a surplus in investor demand for CSR over the supply. The latter finding suggests incentives for managers of firms who plan to engage in CSR activities to assist in creating the demand for socially responsible investment. Otherwise, a lower demand for and high costs of CSR could decrease a firm's market value.

### *CSR as Business Strategy*

CSR has been considered in many different contexts as a means to enhance the competitive advantage of organizations. CSR has been utilized in studies as the predictor variable(s) for business outcomes such as corporate reputation (Brammer & Pavelin, 2006; Fombrun, Gardberg, & Barnett, 2000), attractiveness to prospective employees (Backhaus, Stone, & Heiner, 2002; Greening & Turban, 2000; Turban & Greening, 1996), and customer relations (Becker-Olson et al., 2006; Mohr, Webb, & Harris, 2001; Sen & Bhattacharya, 2001).

Burke and Logsdon (1996) questioned the conditions under which the focus on CSR could be aligned with strategic business goals. These researchers proposed an agenda for using CSR as part of strategic management by incorporating the five strategy dimensions of centrality, specificity, proactivity, voluntarism, and visibility into corporate CSR programs, from which they purported customer loyalty, future purchases, new products and markets, and/or productivity gains could result.



In an essay on the ethics of using ethics as strategy, Husted and Allen (2000) pondered the underlying reasons for social responsibility, and deemed that there are some limits to the strategic use of ethics for businesses. They referred to strategy as the plans and actions that not only achieve competitive advantage, but also contribute to sustainability and superior performance. The authors reviewed social and ethical-based corporate strategies from both a utilitarian and deontological perspective, and concluded that these lenses provide “new and exciting opportunities to re-conceptualize the role of the firm in society” (p. 29), which ultimately have the capacity to improve social welfare.

Saia, Carroll, and Buchholtz (2003) performed a study with 126 publicly-traded U.S. firms with established annual corporate giving programs worth at least \$200,000, to assess managers’ perceptions of the strategic nature and implications of their corporate philanthropy. Their findings revealed a new sense of strategic corporate giving, in that more of these firms were aligning their philanthropic efforts with what managers believed would also be beneficial to the firms’ competitive position.

Following suit on the strategic dimension of CSR, Dentchev (2004) employed case-study methodology to examine both the positive and negative effects of CSP that are associated with the competitive advantage of firms. The researcher’s approach was unique in that it focused on identifying the strategic opportunities and threats of CSP activities, versus measuring competitiveness as a CSP outcome. Both external stakeholders and practitioners from a multinational Belgium firm in the petrochemical industry were interviewed for their opinions on the possible positive and negative effects that could arise from the employment of specific CSP practices within their organization. Additionally, the researcher surveyed

CSP experts for their positions on the dangers and benefits of CSP to organizations in general.

Following a synthesis of responses, Dentchev (2004) reported greatest support in the area of positive effects for improved stakeholder relations with employees, customers, government, and/or the community, with motivation, satisfaction, loyalty, and confidence cited as benefits most specific to employees and customers. Other possible positive effects of the selected CSP practices that were collected included improved corporate reputation, better business models (strategic advantages), and increased profit generation. On the contrary, the possible negative outcomes reported were mostly relative to interference with the core business of the firm, such as through the diversion of managerial attention from the business in the quest to satisfy multiple stakeholders, the lack of proper implementation of CSP, and even the lack of corporate reputation due to varied expectations for CSP programs. Employees, customers, and contractors of the firm seemed to corroborate on their reasoning behind the proposed negative effects, mainly from supposed conflicts with personal interests or values and the CSP efforts in question.

Although Dentchev's (2004) research findings are limited to his study sample and the specific CSP proxy used, the results shed light on the possible benefits and ill consequences of employing CSP practices from the perspective of multiple firm stakeholders. Moreover, the study results lent evidence in support of organizations utilizing strategic information-spreading techniques alongside the implementation of their CSP programs.

Porter and Kramer (2006) asserted that due to the increased attention and rankings of companies on their social responsibility efforts, "CSR has emerged as an inescapable priority for business leaders in every country" (p. 78), and argued that there is a deep

interdependence between the welfare of businesses and society. Moreover, they ascertained that if organizations learned to properly identify, develop, and implement CSR programs as part of core business choices, CSR could lead to opportunities, innovation, and competitive advantages for firms, in addition to substantial benefits for society. These strategists suggested that managers assess what they called social opportunities that can enhance both the firm and society in the same manner that a firm's competitive position is analyzed and strategy is developed, in order to be more proactive and introspective in their approaches to a CSR agenda. Furthermore, Porter and Kramer (2006) downplayed the role that some corporate stakeholder groups might hold for a firm, and advocated against managers trying to satisfy the issues of all multiple stakeholders, since they reasoned that not all groups could sufficiently understand the dynamic decisions involved in core business operations. Instead, they proposed that firms select social issues that can be easily incorporated into routine operational activities of an organization and which are important to stakeholders critical to business success.

In a guest editors' introduction to a special issue on CSR and its strategic implications, McWilliams, Siegel, and Wright (2006) proposed an agenda for related research which included the specifics of needing to: define CSR, identify institutional differences in CSR across countries, determine motivations for CSR, describe CSR strategies, model and assess the effects of CSR on firm and stakeholder groups, determine the effects of leadership and corporate culture on CSR activity, measure the costs of and demands for CSR, and assess the existing knowledge base of the topic. These authors contended that the aforementioned needs comprise the many theoretical and empirical issues that must be resolved for the advancement of CSR research. Husted and Salazar (2006)

responded by comparing cases where corporations used either a strategic, altruistic, or coerced egoistic approach to incorporating CSR, and determined that the strategic approach reaps more benefits (for both the firm and the object of the social action) than when investing in CSR because of a forced or altruistic scenario.

Taking a different approach, Heugens and Dentchev (2007) considered the risks associated with the integration of CSR principles into businesses practices, and conducted two studies in which they identified seven potential risks associated with the adoption of CSR. These risks were placed under their created category of *corporate social responsibility risk*, which they defined as “any unintended pressure on a firm that occurs as a side-effect to its acceptance of social obligations beyond its legal and economic responsibilities” (p. 152). The specific risks that emerged from their studies were: diluting managerial attention from core business activities, spending in a non-productive way on stakeholders, over-extending the organizational coalition to external constituents, poor strategy implementation due to lack of measurements of CSR initiatives, destruction of reputation due to poor signaling effects from the engagement in CSR activities, heightened expectations about the roles firms play in societal matters, and misperceptions by customers and the community about risks associated with CSR issues. Although many risks were identified, Heugens and Dentchev (2007) presented several actions that managers could take to mitigate them, mainly being more strategic in their involvement in CSR activities to avoid dangers in harming their organizations’ competitiveness.

### **Other Considerations for CSR**

In an article partially entitled, “*Why Would Corporations Behave in Socially Responsible Ways?*”, Campbell (2007) presented a discussion drawing from institutional

analysis and the field of comparative political economics to generate hypotheses about the external institutional forces that may influence corporate behavior towards or away from social responsibility. He suggested that a gap in the literature on CSR exists due to the lack of focus on the overall economic conditions and various institutional factors that may surround firms. The author presented eight propositions relative to these conditions and factors and the extents to which they affect socially responsible behavior by corporations. In summary, the propositions stated that: Corporations will be less likely to engage in CSR if they have weak financial performance, are in an ill-economy, or have too much or little competition; whereas they will be more inclined towards CSR behavior with the presence of state regulations or a system of industrial self-regulation, strong activist groups, institutionalized norms, and through the participation in CSR-supportive trade associations and dialogue with primary stakeholders.

CSR was poised as “insurance” for CFP by Peloza (2006), in which he argued that many of the studies that have focused on the CSR-CFP link have not considered the negative effects associated with not having CSR, or the minimized negative effects by incorporating CSR into business practices. Peloza argued that this lack of focus within the CSR research has not allowed for a total benefit analysis of engaging in CSR and the probable understatement of the value of CSR investment. He highlighted a few studies that examined negative CSR events and their consequences, and concluded that the industry and age of the firm are related to the need to rely on CSR for protection measures; and further, that the level of commitment to CSR, methods of positive promotion, and alignment of CSR to the firm’s core business will also impact the effectiveness of the usage of CSR as insurance. He concluded by stating that engaging in CSR should not be viewed as discretionary by

managers, but rather a means of acting in self-interest to better position their firms competitively and also as good actors in society.

### *CSR and HRD*

Although few studies have been conducted on CSR within the context of HRD, several authors have made contributions to the discussion on the roles that HRD professionals can have in supporting socially conscious organizations and practices, of which the foci has been applied to both internal and external organizational constituents. Support for the focus of HRD to include social responsibility as a critical issue for the field is provided as a subsequent discussion.

In a special edition on the philosophical foundations of HRD practice, Ruona (2000) presented results from her study with leaders in HRD about their ideas of excellence for the profession in which she found support for the view of the HRD role in serving society; although some disagreement among the leaders occurred on the extent to which HRD should be extended to this level. If one accepts the global definition of HRD developed by McLean and McLean (2001), practicing HRD for the benefit of societies would apply to CSR practices. Their definition reads, “Human resource development is any process or activity that, either initially or over the long term, has the potential to develop adults’ work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or ultimately, the whole of humanity” (McLean & McLean, 2001, p. 322). Chalofsky (2000) advocated for a higher standard of practice in HRD, and suggested that at the highest level of integrity and morality, an HRD professional might support social responsibility. Hatcher (2003) postulated social responsibility as an “ethical imperative” for the performance improvement component of

HRD; and opined that the profession not only has economic responsibilities to organizations, but also moral responsibilities to the multiple stakeholders on which they have influence.

Similarly, Marquardt (2003) contended the need for HRD professionals to be concerned with the overall needs of society, and presented approaches for contributing to human and social, political, economic, technological, and environmental development and sustainability.

Bierema and D'Abundo (2004) viewed HRD as a profession in the position to significantly effect social change through the integration of a social conscious in organizations, and they gave the reminder that "HRD is about *development*, not profit." (p. 444). Their presented definition of socially conscious HRD was:

Socially conscious human resource development serves an educative and supportive role to help organizations use their resources to benefit their stakeholders. This includes but is not limited to: upholding implied contracts and expectations of the organization, promoting ethical management and leadership, advocating for stakeholders, broadening definitions and measures of organization performance, challenging and revising socially 'unconscious' policies and practices, analysing and negotiating power relations, and promoting the use of organization resources to create social benefit and improve social welfare (p. 449).

These authors also presented a four-level model of socially conscious HRD for organizations, which ranged from socially "unconscious" HRD (minimal level of compliance toward employment and environmental sensitivity); socially compliant HRD (compliant with legal requirements, but not explicitly committed to an overall ethical orientation); enlightened self-interest HRD (engaged in social responsibility based on organizational profitability and sustainability motives); to socially conscious HRD (committed to social responsibility because of intrinsic belief systems on social good).

Regardless of all the discussion and support for socially conscious HRD, a recent study performed by Fenwick and Bierema (2008) on the roles of HRD professionals in CSR-focused organizations revealed little interest or involvement by HRD managers relative to their organizations' CSR activities. The context of this qualitative research study was in eight large North American firms that exemplified dedication to CSR, from which the perceptions of HRD managers on their responsibilities and challenges associated with the implementation of CSR in their respective organizations were explored. Interestingly, the researchers found an overall disconnect between the HRD professionals and the CSR focus in most of the organizations; however, the engagement that was reported centered on employee relations practices.

Further research on the actual roles that HRD professionals play in the promotion or support of CSR, whether internally or externally situated within organizations, is greatly needed. While a lack of specifically addressing CSR in HRD literature and studies exists, Fenwick and Bierema (2008) noted that there has been a growth of interest in organizational ethics, integrity, and sustainability within the discipline. Perhaps the current study will appeal to other HRD scholars and will promote future research endeavors that more directly examine the roles of HRD professionals in the engagement of CSR.

### *CSR Research Directions*

In an attempt to distinguish among the wide variety of approaches to CSR in research, Windsor (2006) described three key and competing theoretical approaches that have emerged throughout CSR research, and interjected little confidence in the synthesis of the theories. The three approaches include the economic considerations for CSR, the ethical arguments for CSR, and the corporate citizenship concept for CSR behaviors. The author presented the



premises and research for the three dimensions, and concluded that although they all claim to be in support of the general welfare of society, each approach manifests into different actions that are sometimes contradictory in nature.

Lockett, Moon, and Visser (2006) explored the status of CSR research by performing an empirical review of the literature published from 1992-2002 in multiple disciplines such as management, economics, law, environmental studies, political science, psychology, philosophy, and sociology. They discovered that dominant in CSR research from management were studies of ethical and environmental subjects, with stakeholder and social concerns following. Moreover, there was a greater presence of quantitative versus qualitative studies overall, and non-normative than normative theoretical articles. Interestingly, they observed a larger margin of decrease in the number of empirical studies as compared to the margin of increase for theoretical papers that were generated since the origin of their study time frame, which they noted is in contradiction to the typical composition of research with the expansion of a field of inquiry. Finally, these researchers concluded that the study of CSR is in a “continuing state of emergence...that can be thought of as a two-edged sword for the future” (p. 133) – either a lack of a clear paradigm or a continued interest in redefining the knowledge of the topic.

Godfrey and Hatch (2007) also reviewed CSR research from a variety of academic disciplines, and presented five critical questions for scholars to consider in furthering the CSR research agenda. These questions directed the focus on tangible CSR processes of actual versus theoretical firms, and addressed the issues of financial payoff, balance of management strategies, substitution of CSR activities, satisfaction of multiple stakeholders, and global expansion of the concept of CSR. These issues were presented as viable research constructs

for businesses, and with the hope that in the quest to seek their answers, there would be rewarding contributions to both academics and society.

This chapter provided a review of the literature on CSR, which included a broad focus of the historical origins of the topic, key theoretical perspectives that have emerged, an overview of empirical research relative to the linkages between CSR and CFP, alternative approaches to examining CSR, and newer research directions. Also presented in this chapter was a description of the literature review process, a list of the array of journals utilized for obtaining relevant articles, and a discussion of the theoretical approach used in support of the study. Within the next chapter are descriptions of the population, data, and analyses utilized in the study to examine the practices of CSR and financial performance of selected U.S. corporations over time.

### **CHAPTER III**

### **METHODOLOGY**

This chapter contains descriptions of the study population and data, including the methods that were employed to format the original data into data ready for the analyses. The methods of the study were situated within the stakeholder theoretical framework, particularly the descriptive and instrumental stakeholder approaches, which allowed for the study of corporations and the management of their primary stakeholder groups relative to CSR and CFP. The selected organizational characteristics chosen to examine corporations for the current study are described in this chapter under the subheading of *Corporate Classification Variables*; while the notion of CSR and associated stakeholder groups are explained under the subsection of *CSR Variables*. The subsection of *Corporate Financial Variables* details the measures chosen to indicate CFP, which in total represent the key stakeholder group of shareholders.

#### **Population**

The study sample included 353 U.S.-based publicly held corporations that were annually rated on six socially responsible business categories from the period of 1991-2002 by a third-party investment advisory firm, KLD Research & Analytics (KLD). The period of 1991-2002 was not selected for its representation of a specific time frame, but was utilized based on the accessibility of data from KLD at the time the researcher initialized the study. KLD specializes in the production of social screens and annual ratings of corporations listed on the Standard & Poor's 500 and Russell 1000 Indices. The 353 corporations selected were taken from a larger sample of 1,540 total corporations offered by KLD, and were chosen based on their availability of the ratings data for all years from 1991-2002. Most of the

companies only had data for a portion of the given time period (282 companies with one year of data, 410 with two, 82 with three, 71 with four, 62 with five, 59 with six, 43 with seven, 55 with eight, 44 with nine, 44 with ten, and 35 with eleven), thus were omitted. The corporations in the study spanned multiple industries and also varied with regards to size and scope.

### **Data**

For the dissertation, there were three main sets of data used, which were referred to as the Corporate Social Responsibility (CSR) variables, the Corporate Financial Performance (CFP) variables, and the Corporate Classification variables. The variables for the study were grouped into these three sets for purposes of the analyses, in attempting to understand the phenomena that may exist within and among differences between the main constructs of CSR and CFP, as well as other aspects of companies that may affect the practices of CSR.

#### *CSR Variables*

The data produced by KLD provided annual social performance ratings of the corporations in six social, environmental, and governance categories (*Community Relations, Diversity, Employee Relations, Environment, Product, and Corporate Governance*), which are referred to as the CSR variables and represent the primary stakeholders of corporations in this study. KLD provides ratings for seven categories, the six aforementioned in addition to human rights (The category of human rights was not included within the current study due to insufficient data available from the study period of 1991-2002). A seventh CSR variable, *Total CSR*, was added to this set as a compilation of the other six variables. The CSR variables provided by KLD, with the exception of human rights, are the most commonly

studied aspects of social responsibility since they represent key stakeholder groups for organizations.

KLD compiles its ratings through a process of multiple-source data collection and reviews by senior analysts who specialize in various industry sectors. The five major sources of data that KLD relies on are: direct communication with company officers; over 10,000 global news sources, public documents such as SEC filings, annual, and proxy reports; information from various government and non-government organizations; and access to data of non-U.S. companies through partnerships with global research firms. Analysts use a proprietary framework to assign positive and negative ratings to the six categories for the production of company profiles to be used by social investors. KLD also sells the company ratings for use in academic research.

An introduction to the uses of the KLD data in research was provided in the literature review, in which it had been deemed the best existing comprehensive dataset on CSR (Griffin & Mahon, 1997; Waddock & Graves, 1997; Wood, 1995). Support from researchers for using the KLD data to reflect CSR has continued (Bird et al., 2007; Hillman & Keim, 2001; Parthiban, Bloom, & Hillman, 2007). However, it should be noted that the CSR dimensions are operationally defined by KLD for purposes more relevant to their business of investment advising than for empirical analysis in academic research; thus creating limitations for how the data can be used and interpreted.

The KLD ratings data include both strength (positive) and concern (negative) items for the CSR categories. The strength items represent actions that are not required by law and are considered to be above relative standards. The concern items represent those actions that failed to meet relative standards or that were in violation of legal requirements. KLD

provides ratings for a different number of strength and concern items for each of the six categories, and not necessarily an equal number of strengths and concerns within each. For example, ratings were available for *Community Relations* under six strength items and three concern items, while *Corporate Governance* had three strengths and four concerns. While these sub-categorical items have not been determined to be wholly representative of a particular CSR category, they were considered to be of primary importance to relative key stakeholder groups by the professional analysts at KLD.

CSR ratings for the years 1991-2002 were utilized for the dissertation project. Where insufficient data was available for all strength and concern items of the six categories across the 12-year time period in question, only those strength and concern items with less than ten percent missing data (Cohen & Cohen, 1983) were included for the analysis. Operational definitions for the KLD strength and concern items of the six CSR variables that were present in the study are contained in Appendix B.

For each strength or concern, KLD originally assigned a nominal rating of either 1 (1 = “yes” for having a strength/concern) or 0 (0 = “no” for not having a strength/concern). Thus, it was necessary to create a new scale of values in order to score the companies on each CSR attribute. Since there are no standardized methods for scoring the KLD ratings, various options were available. A review of previous studies comparing CSR and CFP in which the KLD ratings for similar stakeholder groups or CSR variables were employed revealed several variations in the methodology for scoring each CSR attribute (See Berman et al., 1999; Bird et al., 2007; Hillman & Keim, 2001; Peters & Mullen, 2009; Ruf et al., 2001; Van der Laan et al., 2008; Waddock & Graves, 1997). However, with no consensus

reached on the appropriate methods and an array of mixed results, the researcher considered an alternative approach to scoring the ratings.

In order to create a scale of values for the current study, the researcher recoded the ratings data using the following coding system.

Strength (0) = -1      Strength (1) = 2      Concern (0) = 1      Concern (1) = -1

The codes reflect the highest value for having a strength, the median value for not having a concern, and the lowest value for either not having a strength or having a concern for a certain variable subcategory. In line with viewing CSR as involving managerial discretion to voluntarily perform above and beyond standard business practices for a positive impact toward certain stakeholder groups, the researcher considered it appropriate to award the highest value for having a strength. Likewise, it can be argued that not having a concern may involve the expenditure of corporate resources and/or managerial discretion to remain competitive; thus, the rationale for assigning the next to highest value for no concern. Finally, the lowest value was given for either not having a strength or having a concern; since not having a strength represents the lack of CSR in an established area of importance for certain stakeholders, and having a concern represents the presence of some negative impact towards a stakeholder group. In accordance with previous research, each CSR attribute was considered to hold equal importance within a particular stakeholder category; thus, equal weighting was assigned across all attributes. The coding system generated for the current study represents what is believed to be a unique approach to scoring the KLD items, and more accurately reflects CSR as a collection of business practices toward a positive stakeholder impact.

The newly coded ratings were then summated within each socially responsible category to create variable scores; however, these variable scores were unequally weighted due to the differing number of strength and concern items present in each category. To allow for comparison across the six variables and for the creation of a total score for CSR; and further, to allow for more ease in data interpretation and explanation, the variable scores were then monotonically transformed to six-sigma scores. Descriptive statistics for the seven CSR variables (*Community Relations, Diversity, Employee Relations, Product, Environment, Corporate Governance*), and *Total CSR*, by year, are presented in Tables 1-7.

Table 1. Descriptive Statistics of CSR Variable, *Community Relations*, from 1991-2002

<b>Year</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
1991	353	51.12	42	42	16.650	1.628	2.334
1992	353	52.37	42	42	17.557	1.379	1.076
1993	353	53.36	42	42	19.528	1.536	1.631
1994	353	51.50	42	42	17.547	1.714	2.815
1995	353	51.35	42	42	17.555	1.778	2.959
1996	353	50.02	42	42	16.032	1.802	3.152
1997	353	50.16	42	42	16.587	1.833	3.430
1998	353	48.41	42	42	16.079	1.809	3.748
1999	353	47.74	42	42	16.326	1.844	4.334
2000	353	46.64	42	42	14.824	1.797	4.095
2001	353	46.20	42	42	14.839	1.647	3.702
2002	353	46.82	42	42	16.045	1.769	3.976

Table 2. Descriptive Statistics of CSR Variable, *Diversity*, from 1991-2002

<b>Year</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
1991	353	44.05	40	40	9.322	2.166	5.006
1992	353	44.84	40	40	10.530	2.024	3.803
1993	353	45.67	40	40	11.895	2.221	5.533
1994	353	48.27	40	40	14.760	1.673	2.240
1995	353	49.28	40	40	15.145	1.773	3.309
1996	353	50.02	40	40	16.458	1.646	2.409
1997	353	51.34	40	40	17.008	1.386	1.143
1998	353	52.15	40	40	17.534	1.428	1.623
1999	353	53.08	40	40	18.504	1.499	2.437
2000	353	53.84	56	40	18.857	1.441	2.125
2001	353	54.36	56	40	19.375	1.329	1.518
2002	353	54.17	56	40	18.666	1.199	1.149



Table 3. Descriptive Statistics of CSR Variable, *Employee Relations*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	353	45.69	42	42	12.134	.636	1.047
1992	353	47.78	42	42	13.888	.784	.874
1993	353	48.53	42	42	14.579	.836	.801
1994	353	49.91	42	42	15.480	.705	.263
1995	353	50.88	42	42	16.230	.785	.122
1996	353	49.96	42	42	15.852	1.063	1.111
1997	353	50.89	42	42	17.145	.992	1.406
1998	353	51.65	42	42	18.484	1.043	1.441
1999	353	51.37	42	42	18.239	1.054	1.166
2000	353	51.82	42	42	18.240	.951	.569
2001	353	50.69	42	42	18.108	.888	.695
2002	353	50.01	42	42	18.577	.868	1.005

Table 4. Descriptive Statistics of CSR Variable, *Environment*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	353	50.85	52	52	14.175	-.888	3.748
1992	353	49.60	52	52	15.528	-.985	3.781
1993	353	49.10	52	52	16.606	-.990	3.134
1994	353	48.84	52	52	17.081	-1.120	3.751
1995	353	49.48	52	52	16.480	-.536	2.798
1996	353	50.73	52	52	16.922	-.734	2.889
1997	353	51.20	52	52	18.051	-.610	2.397
1998	353	50.94	52	52	18.079	-1.019	3.218
1999	353	50.40	52	52	17.545	-.919	2.900
2000	353	50.41	52	52	17.170	-.834	3.387
2001	353	49.16	52	52	17.637	-.820	2.884
2002	353	50.59	52	52	16.131	-.481	2.173

Table 5. Descriptive Statistics of CSR Variable, *Product*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	353	52.14	50	50	14.420	.883	2.592
1992	353	52.34	50	50	15.420	.262	1.252
1993	353	52.37	50	50	15.145	.429	.700
1994	353	51.22	50	50	15.946	.200	1.738
1995	353	50.81	50	50	15.401	.163	2.519
1996	353	50.13	50	50	15.711	-.121	2.329
1997	353	49.81	50	50	16.638	-.114	2.101
1998	353	49.49	50	50	17.057	-.129	1.836
1999	353	49.08	50	50	17.261	-.068	1.593
2000	353	48.78	50	50	17.730	-.073	1.916
2001	353	47.10	50	50	18.598	-.148	1.729
2002	353	46.00	50	50	18.865	-.071	1.459

Table 6. Descriptive Statistics of CSR Variable, *Corporate Governance*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	353	56.37	57	57	6.127	-.318	23.198
1992	353	55.53	57	57	11.870	.384	5.446
1993	353	53.46	57	57	13.362	.186	2.866
1994	353	51.77	57	57	15.784	.110	3.797

Table 6 Continued

<b>Year</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
1995	353	49.49	57	57	16.515	.138	2.873
1996	353	50.96	57	57	16.913	.397	2.708
1997	353	50.26	57	57	17.991	.682	1.963
1998	353	47.61	57	57	18.859	.726	1.989
1999	353	48.57	57	57	18.443	.713	2.112
2000	353	47.13	57	57	18.339	.409	2.187
2001	353	45.92	57	57	18.126	.317	2.548
2002	353	45.22	57	57	18.200	.295	2.480

Table 7. Descriptive Statistics of Composite CSR Variable, *Total CSR*, from 1991-2002

<b>Year</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
1991	353	300.05	292	283	38.624	.404	.982
1992	353	302.29	300	283	42.106	.400	.788
1993	353	302.35	298	283	45.319	.199	.711
1994	353	301.48	300	283	47.109	-.210	.251
1995	353	301.29	299	283	46.719	.020	.457
1996	353	301.84	300	283	45.097	-.111	1.590
1997	353	303.71	302	283	48.360	-.297	.798
1998	353	300.25	300	283	49.902	-.291	.953
1999	353	300.23	300	283	49.243	-.186	.484
2000	353	298.67	298	283	47.979	.067	.629
2001	353	293.45	291	283	49.394	-.099	.720
2002	353	292.78	297	283	49.226	-.221	.698

Correlations of the CSR variables were performed to determine their interdependence, and to gauge the soundness in treating each variable as an independent measure of CSR. Correlations of the CSR variables are included in Table 8. The variables were calculated by summing the company score for each CSR variable across the twelve years. The total number of observations per variable was 353. As revealed in the table, the correlations between the variables were low to moderate, with the highest value at .601 (judged to be significant at the .01 level) for *Total Environment* and *Total CSR*. The categorizations of the correlations were based on Cohen's (1988) range of .2 (low), .5 (moderate), and .8 (high). While many of the correlation coefficients were statistically significant (even at the .01 level), the lack of a high correlation between any of the CSR variables supports the study design of assessing each CSR variable separately.

Table 8. Correlations of CSR Variables

		<b>Total Com Rel</b>	<b>Total Div</b>	<b>Total Emp Rel</b>	<b>Total Env</b>	<b>Total Pro</b>	<b>Total Cgov</b>	<b>Total CSR</b>
<b>Total Com Rel</b>	Pearson correlation	1	.382**	.051	.122*	-.044	-.092	.482**
	Sig (2-tailed)		.000	.336	.022	.415	.086	.000
<b>Total Div</b>	Pearson correlation	.382**	1	.181**	.002	.017	-.216**	.467**
	Sig (2-tailed)	.000		.001	.977	.745	.000	.000
<b>Total Emp Rel</b>	Pearson correlation	.051	.181**	1	.079	.210**	-.051	.493**
	Sig (2-tailed)	.336	.001		.141	.000	.341	.000
<b>Total Env</b>	Pearson correlation	.122*	-.022	.079	1	.307**	.241**	.601**
	Sig (2-tailed)	.022	.977	.141		.000	.000	.000
<b>Total Pro</b>	Pearson correlation	-.044	.017	.210**	.307**	1	.224**	.584**
	Sig (2-tailed)	.415	.745	.000	.000		.000	.000
<b>Total Cgov</b>	Pearson correlation	-.092	-.216**	-.051	.241**	.224**	1	.341**
	Sig (2-tailed)	.086	.000	.341	.000	.000		.000
<b>Total CSR</b>	Pearson correlation	.482**	.467**	.493**	.601**	.584**	.341**	1
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	

*Note:* Total Com Rel = Total Community Relations, Total Div = Total Diversity, Total Emp Rel = Total Employee Relations, Total Env = Total Environment, Total Pro = Total Product, Total Cgov = Total Corporate Governance.

\*Sig at the .05 level, \*\*Sig at the .01 level.

### *Corporate Financial Performance Variables*

Corporate financial performance is a multidimensional construct, consisting of multiple aspects of performance and measured with a wide array of variables. However, relative to CSP research, there is an underscoring obligation to focus on increased wealth for shareholders to holistically satisfy the multiple stakeholder approach. Thus, some of the variables chosen for this study represent aspects of CFP associated with stock price performance. In addition, previous researchers have indicated the importance of selecting both accounting and market variables for a more comprehensive representation of financial performance (see Orlitzky, Schmidt, & Rynes, 2003 and Wu, 2006), and the specific financial variables chosen for this study consisted of key financial indicators relative to companies' profitability and market valuation. The variables chosen to represent profitability

and market valuation were *Return on Assets (ROA)*, *Sales*, *Market Capitalization*, *ROA Annual Growth*, *Sales Annual Growth*, and *Market Capitalization Annual Growth*. *Return on Assets (ROA)* is a profitability measure relative to a company's total assets, calculated by dividing total assets by net income (Investopedia, 2008). *Sales* account for the revenues that are generated by a company from selling its products or services, in terms of total dollar amounts. *Market Capitalization* is a measure of the number of a company's outstanding shares times the share's market price (Investopedia, 2008). *ROA Annual Growth* represents the annual increase or decrease of the *ROA* ratio. *Sales Annual Growth* is simply the difference between *Sales* revenues from one year to the next. The variable *Market Capitalization Annual Growth* captures the annual change of a company's valuation in market terms, of which a positive change is a primary objective of any CEO.

The financial variables were retrieved from an online database offered through the Texas A&M libraries, Thomson ONE Banker, which hosts an array of corporate financial and descriptive data taken from multiple industry-leading data sources, such as Worldscope, Datastream, Compustat, and more. The nature of the Thomson ONE Banker online database provides accessible spreadsheet downloads of public corporate data taken directly from the companies' annual proxy statements. The data provided by Thomson ONE Banker is not adjusted for inflation; thus, the financial performance variables that were reported in dollars and used in comparisons across years were adjusted for inflation prior to the analyses using the Consumer Price Index (CPI) (Bureau of Labor Statistics, 2008). The inflation calculations were generated using CPI's online calculator, with 2002 chosen as the base year from which to compare the other previous eleven years in the study time period. The amount of \$100 was inserted into the online calculator for each respective year to compare to 2002, so as to

generate a real-term dollar amount that was converted into a percentage and multiplied to the original values. The latter step was performed for each of the twelve years (1991-2002) for each study variable that was adjusted. Descriptive statistics for the CFP variables are presented in Tables 9-14.

Table 9. Descriptive Statistics of CFP Variable, *Return on Assets*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	323	7.34	6.85	-23.78 <sup>a</sup>	6.49	.25	4.19
1992	324	6.49	6.67	-43.78 <sup>a</sup>	7.88	-1.03	9.39
1993	324	7.21	6.59	-13.99 <sup>a</sup>	6.22	1.16	8.00
1994	324	8.34	7.39	-9.63 <sup>a</sup>	5.54	2.29	15.01
1995	324	8.28	7.62	-17.98 <sup>a</sup>	6.37	1.68	13.04
1996	325	8.25	7.57	-13.40 <sup>a</sup>	5.90	2.26	17.78
1997	325	8.02	7.34	-34.49 <sup>a</sup>	6.93	.56	12.15
1998	324	7.85	7.00	-14.33 <sup>a</sup>	6.82	1.61	9.44
1999	325	8.24	7.29	-38.52 <sup>a</sup>	6.88	.61	12.05
2000	325	8.54	7.29	-10.37 <sup>a</sup>	7.39	1.98	10.12
2001	326	6.04	5.51	-35.61 <sup>a</sup>	6.69	-.02	7.19
2002	326	4.39	4.74	-45.33 <sup>a</sup>	7.75	-1.10	6.97

a: Multiple modes exist. The smallest value is shown.

Table 10. Descriptive Statistics of CFP Variable, *Sales*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	350	8148.48	3359.41	6021.98 <sup>a</sup>	16447.83	5.59	38.38
1992	350	8257.13	3501.34	54.94 <sup>a</sup>	16705.88	5.71	40.43
1993	350	8297.69	3436.56	46.87 <sup>a</sup>	16603.68	5.82	41.89
1994	350	8792.47	3729.82	46.99 <sup>a</sup>	17889.03	6.08	45.77
1995	351	9264.34	3916.57	49.32 <sup>a</sup>	18732.67	6.16	46.82
1996	351	9538.54	4186.92	45.84 <sup>a</sup>	18928.36	6.06	45.22
1997	351	10228.97	4585.69	45.66 <sup>a</sup>	19795.86	5.90	43.08
1998	351	10489.56	4658.18	4105.76 <sup>a</sup>	19380.99	5.47	37.08
1999	351	11510.85	5113.49	56.05 <sup>a</sup>	22297.98	5.59	37.37
2000	352	12632.11	5743.57	57.65 <sup>a</sup>	24392.94	5.58	37.72
2001	352	12813.57	5427.37	6769.29 <sup>a</sup>	24327.20	5.26	34.34
2002	351	12309.75	5062.31	59.20 <sup>a</sup>	24516.76	5.69	40.49

a: Multiple modes exist. The smallest value is shown.

Table 11. Descriptive Statistics of CFP Variable, *Market Capitalization*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991	349	7752.36	3336.09	102.86 <sup>a</sup>	13545.71	3.99	18.85
1992	349	7927.41	3647.01	88.52 <sup>a</sup>	13212.33	4.12	21.12
1993	349	8227.42	3939.31	92.30 <sup>a</sup>	13360.21	4.11	21.87
1994	349	7983.90	3574.42	53.86 <sup>a</sup>	13386.69	4.03	20.44
1995	350	10345.71	4415.12	58.44 <sup>a</sup>	17790.88	4.02	20.25
1996	351	11937.71	4946.18	55.23 <sup>a</sup>	21586.16	4.26	23.19
1997	351	15636.27	6059.18	53.25 <sup>a</sup>	29044.27	4.23	23.79
1998	350	19223.02	5730.38	35.61 <sup>a</sup>	39412.23	4.35	24.53

Table 11 Continued

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1999	351	22429.02	5694.78	30.47 <sup>a</sup>	52581.68	5.27	37.22
2000	352	22391.85	5750.98	41.27 <sup>a</sup>	50031.06	4.89	31.74
2001	352	19792.31	5626.07	50.62 <sup>a</sup>	43483.50	4.73	27.87
2002	350	15345.36	5043.36	34.03 <sup>a</sup>	31830.51	4.42	23.11

a: Multiple modes exist. The smallest value is shown.

Table 12. Descriptive Statistics of CFP Variable, *ROA Annual Growth*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991-92	323	-.74	-.23	-44.31 <sup>a</sup>	5.87	-.79	15.40
1992-93	324	.72	-.01	-19.79 <sup>a</sup>	5.98	2.05	11.92
1993-94	324	1.13	.50	-17.06 <sup>a</sup>	4.32	.71	4.62
1994-95	324	-.06	.24	-23.51 <sup>a</sup>	3.83	-1.52	9.18
1995-96	324	-.01	.04	-21.30 <sup>a</sup>	4.52	-.30	5.60
1996-97	325	-.23	.06	-42.06 <sup>a</sup>	4.73	-1.94	22.08
1997-98	324	-.22	-.05	-21.58 <sup>a</sup>	5.84	1.99	15.40
1998-99	324	.41	-.04	-35.89 <sup>a</sup>	5.99	-.13	13.00
1999-00	325	.30	.08	-39.52 <sup>a</sup>	7.33	2.91	29.54
2000-01	325	-2.51	-1.67	-41.03 <sup>a</sup>	7.01	-1.83	9.74
2001-02	325	-1.64	-.25	-45.61 <sup>a</sup>	6.83	-2.07	11.00

a: Multiple modes exist. The smallest value is shown.

Table 13. Descriptive Statistics of CFP Variable, *Sales Annual Growth*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991-92	350	108.64	49.02	-8490.01 <sup>a</sup>	1392.80	2.89	43.59
1992-93	350	40.56	54.34	-16926.71 <sup>a</sup>	1736.40	-2.56	41.12
1993-94	350	494.77	125.29	-5056.77 <sup>a</sup>	1954.56	6.59	57.89
1994-95	350	490.62	151.78	-25003.70 <sup>a</sup>	2131.15	-3.77	62.62
1995-96	351	274.20	105.83	-34136.29 <sup>a</sup>	2353.53	-8.52	132.42
1996-97	351	690.43	142.75	-12838.29 <sup>a</sup>	2518.47	4.51	39.05
1997-98	350	283.57	92.57	-23681.45 <sup>a</sup>	2912.37	-1.71	28.13
1998-99	351	1021.29	138.70	-6190.10 <sup>a</sup>	4514.61	8.78	104.48
1999-00	351	1153.03	175.98	-9005.79 <sup>a</sup>	4019.35	5.72	44.13
2000-01	352	181.46	-28.99	-24822.25 <sup>a</sup>	4844.93	5.53	61.23
2001-02	351	-536.16	-29.96	-47688.86 <sup>a</sup>	5055.92	-5.00	50.26

a: Multiple modes exist. The smallest value is shown.

Table 14. Descriptive Statistics of CFP Variable, *Market Capitalization Annual Growth*, from 1991-2002

Year	N	Mean	Median	Mode	SD	Skewness	Kurtosis
1991-92	349	175.05	178.18	-30216.51 <sup>a</sup>	3173.66	-3.12	36.52
1992-93	349	300.01	129.06	-22813.25 <sup>a</sup>	2800.21	.40	27.09
1993-94	349	-243.52	-132.97	-12297.21 <sup>a</sup>	2151.03	.39	11.07
1994-95	349	2338.39	673.86	-3930.01 <sup>a</sup>	5168.31	3.79	17.11
1995-96	350	1624.80	353.45	-41241.55 <sup>a</sup>	6354.93	4.60	50.47
1996-97	351	3698.56	867.59	-8808.76 <sup>a</sup>	8951.93	4.13	22.89
1997-98	350	3582.15	64.37	-19629.28 <sup>a</sup>	13060.57	4.68	26.61
1998-99	350	3264.31	-121.89	-43774.54 <sup>a</sup>	19934.88	4.98	31.76
1999-00	351	20.45	-3.93	-124205.07 <sup>a</sup>	17227.86	.79	38.22
2000-01	352	-2599.54	-26.01	-93285.76 <sup>a</sup>	12873.32	-3.53	22.62
2001-02	350	-4545.54	-401.66	-161350.42 <sup>a</sup>	14957.60	-6.01	46.74

a: Multiple modes exist. The smallest value is shown.

Correlations of the CFP variables were performed to determine the feasibility in treating each variable as an independent measure of financial performance. Correlations of the CFP variables in composite form are included in Table 15. The composite variables were calculated by summing the company score for the CFP variables across all years. Since the growth variables (*ROA Annual Growth*, *Sales Annual Growth*, and *Market Capitalization Annual Growth*) only had values for eleven years, the other CFP variables (*ROA*, *Sales*, and *Market Capitalization*) were totaled by adding the values from years 1992-2002, omitting the first year in the time period. The number of observations in the correlations ranged from 319 to 348, out of a possible 353 companies, due to missing data. The numbers of missing data points was acceptable because they represent less than 10 percent of missing data (Cohen & Cohen, 1983). Reviewing Table 15, one can see that the correlations between the variables ranged from low to high. Only one positive correlation between Market Capitalization and Total Market Capitalization Annual Growth was found to be high (.822 at the .01 significance level); while the remaining correlations were low to moderate (Cohen, 1988).

Table 15. Correlations of CFP Variables

		<b>Tot ROA</b>	<b>Total MC</b>	<b>Tot Sales</b>	<b>Tot ROA Growth</b>	<b>Total MC Growth</b>	<b>Tot Sales Growth</b>
<b>Tot ROA</b>	Pearson correlation	1	.185**	-.084	-.025	.187**	.074
	Sig (2-tailed)		.001	.130	.658	.001	.186
<b>Total MC</b>	Pearson correlation	.185**	1	.666**	.056	.822**	.538**
	Sig (2-tailed)	.001		.000	.323	.000	.000
<b>Tot Sales</b>	Pearson correlation	-.084	.666**	1	.061	.475**	.573**
	Sig (2-tailed)	.130	.000		.277	.000	.000
<b>Tot ROA Growth</b>	Pearson correlation	-.025	.056	.061	1	.161**	.038
	Sig (2-tailed)	.658	.323	.277		.004	.496
<b>Tot MC Growth</b>	Pearson correlation	.187**	.822**	.475**	.161**	1	.647**
	Sig (2-tailed)	.001	.000	.000	.004		.000

Table 15 Continued

		<b>Tot ROA</b>	<b>Total MC</b>	<b>Tot Sales</b>	<b>Tot ROA Growth</b>	<b>Total MC Growth</b>	<b>Tot Sales Growth</b>
<b>Tot Sales Growth</b>	Pearson correlation	.074	.538**	.573**	.038	.647**	1
	Sig (2-tailed)	.186	.000	.000	.496	.000	

*Note:* Tot ROA = Total ROA, Tot MC = Total Market Capitalization, Tot Sales = Total Sales, Tot ROA Growth = Total ROA Annual Growth, Tot MC Growth = Total Market Capitalization Annual Growth, Tot Sales Growth = Total Sales Annual Growth.

\*\*Sig at the .01 level.

### *Corporate Classification Variables*

Other data used in the study consisted of various corporate descriptive or classification variables that served in examining aspects related to CSR practices that are relatively unreported at this point. For example, it is largely understood by both academicians and practitioners that corporate managers bear responsibilities to a large number of constituents which confounds their decisions about CSR; however, the underlying explanations behind such management decisions are less understood. Because managers are not obligated to engage in CSR, it is important to question the reasons why they do in certain areas, with respect to their associations with their businesses and their operating environments. This type of exploratory analysis hopefully helps to shed light on aspects of management decision-making regarding CSR practices, relative to management's composition, individual opportunism, resources-allocation, and environmental or cultural values.

In order to explore possible implications from corporations' operating environments and assumptions about cultural differences, companies were grouped according to the variables *U.S. Region of HQ* and *U.S. Region of Inc.* for comparisons among regions. These variables represent the geographical locations of companies in terms of their U.S. state of incorporation and also their state of headquarters, defined through the division of states set by the U.S. Census Bureau.



Likewise, a company's industry category is typically used as a control for comparing business practices within industries, but few comparisons have been made across multiple industries to determine if patterns for CSR exist within similar business environments. Thus, companies were classified on the variable *Primary Industry*, based on the U.S. SIC coding system.

Relating to management composition, the researcher explored if organizations with different levels of diversity (based on gender, minorities, and the physically disabled) of corporate boards and company officers exhibited different performances in practices within the other five CSR categories. The variable, *Level of Diversity of Corporate Leaders*, comes from KLD and represents a range of diversity practices, such as a diversified board of directors, female or minority CEO, as well as increased employment, promotions, and benefits for women, minorities, and/or the disabled. In further viewing the roles of the corporate leaders in relation to CSR, the variable *Level of Closely Held Shares* was incorporated to represent the amount of shares of stock held by the officers and directors of the companies. This variable was originally expressed as a percentage of the overall outstanding shares for each company, and was included to explore how ownership interests or desired benefits from increased stock prices might stimulate a greater or lesser emphasis on certain social responsibility practices. Similarly, *Level of Compensation of Corporate Leaders* (notably high or low) for companies were analyzed for their relation to differences in business practices of CSR. The data for this variable was taken as a subset of the KLD ratings data, from the variable of *Corporate Governance*.

Lastly, in response to previous researchers' posit that the slack resources theory may lead to better CSR practices (Orlitzky, Schmidt, & Rynes, 2003), management decisions

regarding resources allocation and resulting CSR practices were explored through the utilization of levels for five independent financial performance variables, *Level of Price Volatility*, *Level of Working Capital*, *Level of Return on Assets (ROA)*, *Level of Net Income*, and *Level of Total Assets*. Price volatility is measured by the percentage of fluctuation of the price of a company's stock from its annual mean price, and represents one aspect of stability of a company, specifically uncertainty about stock price performance (Investopedia, 2008). Working Capital, which is expressed as a percentage of a company's total capital, is a variable that represents a company's short-term financial health and underlying efficiency in being able to manage its assets relative to its debts (Investopedia, 2008). Return on Assets (ROA), as described in the first section under *Corporate Financial Variables* above, is a profitability ratio relative to a company's total assets. The variable Net Income is calculated by subtracting business costs, taxes, interest, and other expenses from business revenues; represents a company's total earnings or profits, and is often used to measure how profitable a company is over a given time period (Investopedia, 2008). Total Assets represents the sum of all the company's assets (current, long-term intangible, etc.), or items of economic value that could be converted into cash (InvestorWords, 2009). The five previously described financial variables were selected to represent financial risk and available resources of corporations, in order to gain more insights on whether different levels of CFP result in variances in CSR performances.

All variables discussed in this section starting with "Corporate Classification Variables", with the exception of *Level of Diversity of Corporate Leaders* and *Level of Compensation of Corporate Leaders* (derived from KLD data), were retrieved from the Thomson ONE Banker database. Descriptive statistics for the Corporate Classification

Variables are contained within Table 16. Note that they are not listed by year, as were the descriptive statistics for the CSR and CFP variables, because the Corporate Classification variables were utilized as a set of constant independent variables in the study, with the CSR variables as the resulting dependents for the twelve-year period. See the following section, “Assessing CSR Practices”, for a more detailed description of how a constant level was assigned to each Corporate Classification variable.

Table 16. Descriptive Statistics for Corporate Classification Variables

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
<b>U.S. Region of HQ</b>				
Northeast	102	28.9	29.1	29.1
Midwest	109	30.9	31.1	60.1
South	88	24.9	25.1	85.2
West	52	14.7	14.8	100.0
Total	351	99.4	100.0	
Missing	2	.6		
<b>U.S. Region of Inc.</b>				
Northeast	57	16.1	17.6	17.6
Midwest	52	14.7	16.0	33.6
South	215	60.9	66.4	100.0
Total	324	91.8	100.0	
Missing	29	8.2		
<b>Primary Standard Industrial Classification</b>				
Manufacturing	188	53.3	55.8	55.8
Services	50	14.2	14.8	70.6
Transportation & Utilities	49	13.9	14.5	85.2
Wholesale & Retail Trade	50	14.2	14.8	100.0
Total	337	95.5	100.0	
Missing	16	4.5		
<b>Level of Diversity of Corporate Leaders</b>				
Low	119	33.7	33.7	33.7
Medium	146	41.4	41.4	75.1
High	88	24.9	24.9	100.0
Total	353	100.0		
Missing	0	0.0		
<b>Level of Closely Held Shares</b>				
Low	88	24.9	24.9	24.9
Medium	177	50.1	50.1	75.1
High	88	24.9	24.9	100.0
Total	353	100.0		
Missing	0	0.0		
<b>Level of Compensation of Corporate Leaders</b>				
Low	107	30.3	30.3	30.3
Medium	211	59.8	59.8	90.1
High	35	9.9	9.9	100.0

Table 16 Continued

Variable	Frequency	Percent	Valid Percent	Cumulative Percent
Total	353	100.0		
Missing	0	0.0		
<b>Level of Price Volatility</b>				
Low	86	24.4	24.9	24.9
Medium	173	49.0	50.1	75.1
High	86	24.4	24.9	100.0
Total	345	97.7	100.0	
Missing	8	2.3		
<b>Level of Working Capital</b>				
Low	82	23.2	25.0	25.0
Medium	164	46.5	50.0	75.0
High	82	23.2	25.0	100.0
Total	328	92.9	100.0	
Missing	25	7.1		
<b>Level of Total Assets</b>				
Low	88	24.9	25.0	25.0
Medium	176	49.9	50.0	75.0
High	88	24.9	25.0	100.0
Total	352	99.7	100.0	
Missing	1	.3		
<b>Level of Net Income</b>				
Low	88	24.9	24.9	24.9
Medium	177	50.1	50.1	75.1
High	88	24.9	24.9	100.0
Total	353	100.0	100.0	
Missing	0	0.0		
<b>Level of ROA</b>				
Low	82	23.2	25.0	25.0
Medium	164	46.5	50.0	75.0
High	82	23.2	25.0	100.0
Total	328	92.9	100.0	
Missing	25	7.1		

### Data Analysis

The study was largely exploratory in nature and included two main aims – 1. To assess changes in organizational CSR practices over time from the perspective of different groups of selected corporate classification and CFP variables, and 2. To assess changes in firms' financial performances over time from the perspective of different levels of CSR. Thus, the researcher was interested in analyzing the CSR practices from perspectives of both the dependent and independent variables. Two main sets of analyses resulted – the *CSR Analyses* and the *CFP Analyses*.

In the CSR Analyses, the seven CSR practices (*Community Relations, Diversity, Employee Relations, Environment, Product, Corporate Governance, Total CSR*) were used as the dependent variables, while the selected corporate classification variables (*U.S. Region of HQ, U.S. Region of Inc., PSIC, Level of Diversity of Corporate Leaders, Level of Compensation of Corporate Leaders, Level of Closely Held Shares*) and CFP variables (*Level of Price Volatility, Level of Working Capital, Level of ROA, Level of Net Income, Level of Total Assets*) were used as the independents.

In the CFP Analyses, the other CFP variables (*ROA, Sales, ROA Annual Growth, Sales Annual Growth, Market Capitalization, Market Capitalization Annual Growth*) served as the dependents, with the classification levels of the seven CSR variables (previously listed) serving as the independents. In both sets of analyses, the independent variable of *Year* was also incorporated, in order to be able to assess changes in CSR practices or CFP over time. A listing of the dependent and independent variables used in both sets of analyses is presented in Table 17.

Table 17. Independent and Dependent Variables Used in the Study

	Independent Variables	Dependent Variables
<b>CSR Analyses</b>	Year	Community Relations
	U.S. Region of HQ	Diversity
	U.S. Region of Inc.	Employee Relations
	Primary Standard Industrial Category	Environment
	Level of Diversity of Corporate Leaders	Product
	Level of Compensation of Corporate Leaders	Corporate Governance
	Level of Price Volatility	Total CSR
	Level of Working Capital	
	Level of Return on Assets (ROA)	
	Level of Closely Held Shares	
	Level of Net Income	
	Level of Total Assets	
<b>CFP Analyses</b>	Year	Return on Assets (ROA)
	Level of Community Relations	Sales
	Level of Diversity	Market Capitalization
	Level of Employee Relations	ROA Annual Growth
	Level of Environment	Sales Annual Growth
	Level of Product	Market Capitalization Annual Growth

Table 17 Continued

Independent Variables	Dependent Variables
Level of Corporate Governance	
Level of Total CSR	

### *Assessing CSR Practices*

The first set of analyses, referred to as the CSR Analyses throughout the study, was conducted to address the first study research question of:

1. Are there differences in average performance of the seven CSR practices (community relations, diversity, employee relations, environment, product, corporate governance, total CSR), for companies with different levels of selected corporate classification and CFP variables, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?

For the CSR Analyses, a two-factor mixed model design was used with each of the seven CSR variables as the DV, the variable *Year* with 12 levels representing 1991-2002 as the within-subjects portion, with the between-subjects variable consisting of each of the corporate classification or selected CFP variables per analysis. Eleven mixed model ANOVAs resulted.

The selected independent variables (IVs), or classification variables to be used for the between-subjects part of each analysis, included: the geographic location within the U.S. in regards to the office headquarters and state of incorporation (*U.S. Region of HQ/ U.S. Region of Inc.*), the companies' primary industry sector (*PSIC*), the diversity of the corporate boards of officers and directors (*Level of Diversity of Corporate Leaders*), and the number of corporate shares held by officers and directors in terms of a percentage of total shares outstanding (*Level of Closely Held Shares*), levels of compensation for corporate leaders

(*Level of Compensation of Corporate Leaders*); and the five variables representative of financial performance and stability: volatility of stock price (*Level of Price Volatility*), working capital as a percentage of total capital (*Level of Working Capital*), a company's net income (*Level of Net Income*), total assets (*Level of Total Assets*), and the ROA ratio (*Level of ROA*).

The independent variable of *Year* was incorporated into every mixed model ANOVA with each of the respective classification variables, but there was no further crossing of any of the selected classification variables in the models. The incorporation of the variable of *Year* in each of these models allowed the researcher to explore how different groups of the selected classification variables varied across the study period, with regards to the CSR practice examined.

With the exception of the variables *PSIC*, *U.S. Region of HQ*, and *U.S. Region of Inc.* that are constants across the years, the remaining classification variables (*Level of Diversity of Corporate Leaders*, *Level of Closely Held Shares*, *Level of Compensation of Corporate Leaders*, *Level of Price Volatility*, *Level of Working Capital*, *Level of Net Income*, *Level of Total Assets*, and *Level of ROA*) have different values reported for each year; thus, it was necessary to determine an appropriate method for obtaining a representative value for each variable to be used for the between-subjects parts of the analyses. Thus, in the case of each of the aforementioned variables, an average was taken of the values from all twelve years, and then percentiles were used to categorize the companies into one of three groups or levels (Low, Medium, or High). These three groups were utilized because of the difficulty in using any established benchmarks, given that the benchmarks are relative to other factors (industry, size of organization) that were not controlled for in the study. In the case of missing data for

these variables, the average of the present values within the twelve years was inserted into the missing slot(s) before the new average was calculated.

The groups, or levels, for the variables *PSIC*, *U.S. Region of HQ*, and *U.S. Region of Inc.* were defined as already set forth by the SIC system and the U.S. Department of Labor, respectively. For the variable of *PSIC*, companies were classified into four groups (Manufacturing, Services, Transportation & Utilities, Wholesale & Retail Trade), which were comprised from the collapsing of six categories provided by the U.S. Department of Labor (Manufacturing; Services; Finance, Insurance, & Real Estate; Transportation, Communications, Electric, Gas, & Sanitary Services; Wholesale Trade; Retail Trade). Due to an insufficient number of companies (at least 30) in each group for purposes of the data analysis, it was necessary to collapse smaller groups into a larger category. Companies that were originally categorized into the classification of Finance, Insurance, and Real Estate were combined with those in the Services category to form the final group of Services. The two categories of Wholesale Trade and Retail Trade were combined to form one group, while organizations originally classified as Manufacturing remained in the same category. The original category of Transportation, Communications, Electric, Gas, and Sanitary Services also remained in tact, but was renamed to Transportation & Utilities to shorten the category title. The new categories were comprised with the intention to combine companies with the most similar business structures.

Finally, the variables taken as subsets of the KLD data – *Level of Diversity of Corporate Leaders* and *Level of Compensation of Corporate Leaders*, were not reported as actual values but instead based on the original KLD rating scheme as described above, with nominal ratings of either 0 or 1 representing a “no” or “yes” answer for a company satisfying



a certain criteria. Thus, the same scale that was utilized in recoding the CSR variables was used for these two variables as well. The original ratings were recoded and then summated across the twelve years to establish a company's score for each variable. The scores for all companies were then divided into percentile levels to create three groups of Low, Medium, and High. These categories were chosen for these variables because the actual amounts of the corporate leaders' diversity or compensation were not disclosed by KLD, which prevented the utilization of any preset benchmarks.

In addition, the CSR Analyses using *Level of Diversity of Corporate Leaders* and *Level of Compensation of Corporate Leaders* as the between-subjects factor were only performed using the remaining five CSR variables as the DVs, since these two variables are subcategories of the original KLD data that were utilized as the CSR variables (*Diversity* and *Corporate Governance*) in this study.

### *Assessing Corporate Financial Performances*

The second set of analyses, referred to as the CFP Analyses throughout the study, was conducted to address the second study research question of:

2. Are there differences in average performance of CFP, in terms of return on assets (ROA), sales, market capitalization, ROA annual growth, sales annual growth, and market capitalization annual growth, for companies with different levels of the CSR practices, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?

To assess the CFP of organizations, six mixed model ANOVAs were utilized to assess annual changes of the selected financial performance variables, *Return on Assets*

(*ROA*), *Sales*, *Market Capitalization*, *ROA Annual Growth*, *Sales Annual Growth*, and *Market Capitalization Annual Growth*. Similar to the analyses previously described for assessing CSR practices, a composite score of CSR as well as each of the six individual CSR variables were employed in the analyses; however, these variables were incorporated as the IVs within the assessments of financial performance. Conducting the analyses with each of the six individual CSR variables as the between-subjects part in the models provided more detailed information on how different levels of each CSR variable related to the average performances of the selected financial performance variables for companies.

Two-factor mixed model ANOVAs with repeats on the second factor were employed with the six CFP variables as dependents, the levels of the seven CSR variables as the between-subjects factors (separate analyses incorporating each CSR perspective), and the variable of *Year* as the within subjects factor. For the annual growth variables, only 11 levels of *Year* (11 annual changes within 1991-2002) were used for the within-subjects factor. A simple calculation of the difference in value from one year to next was used to calculate the annual growth for *Sales Annual Growth*, *ROA Annual Growth*, and *Market Capitalization Annual Growth*. Here again, the independent variable of *Year* was incorporated into every mixed model ANOVA with each of the respective classification variables, but there was no further crossing of any of the selected classification variables in the models. The incorporation of the variable of *Year* in each of these models allowed the researcher to explore how organizations with different levels of the CSR practices varied across the study period, with regards to CFP.

Similar to the description of some of the classification variables or IVs in the previous section, the CSR variables had different values reported for each year; thus, the

researcher had to determine the appropriate methods for establishing a representative value for each company for the analyses. To establish a representative group for each of the six CSR variables, the values for each CSR variable per year were first pooled to result in a cumulative CSR variable score per company. As done previously, the scores for each variable per company were then divided into percentile groups of Low, Medium, and High. Percentile levels were chosen to represent low, medium, and high CSR for these analyses, since cut-offs or generally accepted practices have not been established for CSR, nor can be decided upon due to the usage of the KLD data and its original construction. Likewise, in the creation of the *Total CSR* score, the researcher pooled the six cumulative CSR variable scores for each company, and then divided the new composite CSR scores into similar percentile categories of Low, Medium, and High.

Due to the utilization of two-factor mixed model ANOVAs in the study, there were the possibilities of interactions between the two independent factors in the analyses. Significance values for interactions were viewed in conjunction with the partial eta squared and power estimates. Interactions with significance and at least a medium partial eta squared value ( $> .06$ ) or high power ( $> .8$ ) (Cohen & Cohen, 1983) were considered significant and were analyzed at the simple main effects level. Interactions with significance and either a low partial eta squared value or low to medium power were considered not to have practical significance, and the factors in question were analyzed at the main effects level.

In those instances in the analyses where the trend was probed across time for the within subjects variable of *Year*, the trend that explained the majority of the variation across years was the only one discussed. The other trends that resulted in significance, but

accounted for lower proportions of the models, can be seen in the within subjects contrasts table of the respective appendix for each set of analyses.

All analyses that were performed as part of the mixed-model ANOVAs were assessed at the .05 significance level, with two exceptions. One was in the cases of the post hoc analyses that were conducted for the within subjects variable of *Year*, which were interpreted at the .001 significance level. This was invoked because of the large number of post hoc tests (103) conducted within the study for *Year*, which would have put the Bonferroni adjusted significance alpha at a level greater than six decimal places (.00000368). Similarly, in the cases of interpreting the trends of the variable *Year* through the within subjects contrast tables, the conservative alpha level of .001 was utilized due to the large number of tests conducted within the study. The correlations performed were reported at both the .05 and .01 levels. Finally, throughout the study, significance was only interpreted with the presence of at least a medium effect size or high power estimate.

Chapter III accounted for the study population; the data employed within the study, (*CSR variables, Corporate Classification Variables, and CFP variables*); the study research questions; and the statistical analyses designed to examine the latter. The statistical analyses were divided into and discussed by two main sets, namely *Assessing CSR Practices* and *Assessing Corporate Financial Performance*. Provided within Chapter IV are further descriptions of the analyses, referred to as *CSR Analyses* and *CFP Analyses*, respectively, and the complete presentation of results.

## CHAPTER IV

### RESULTS OF THE STUDY

All statistical analyses were conducted using the Statistical Package for the Social Sciences, version 15.0 for Windows. SPSS was selected for its familiarity and common usage within HRD research.

#### Introduction

One purpose of this study was to determine if companies with different levels of various aspects of corporations, such as: geographical location, industry sector, CEO compensation, stock ownership by corporate officers and directors, diversity in the composition of board and officers, and certain financial performance indicators, exhibited differences in CSR practices. Additionally, the researcher was interested in these differences over time. The other purpose of the study was to determine if organizations with different levels of CSR practices exhibited differences in accounting and market-based measures of corporate financial performance, over the same time period. To fulfill these purposes, six CSR practices identified by KLD (*Community Relations, Diversity, Employee Relations, Environment, Product, and Corporate Governance*), and a composite of these practices, *Total CSR*, were examined over twelve consecutive years for 353 U.S. corporations. Specific research questions addressed were:

1. Are there differences in average performance of the seven CSR practices (Community Relations, Diversity, Employee Relations, Environment, Product, Corporate Governance, Total CSR), for companies with different levels of selected corporate classification and CFP variables, from the period of 1991-2002?

Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?

2. Are there differences in average performance of CFP, in terms of Return on Assets (ROA), Sales, Market Capitalization, ROA Annual Growth, Sales Annual Growth, and Market Capitalization Annual Growth, for companies with different levels of the CSR practices, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?

The research questions yielded two main categories of analyses for the dissertation – CSR Analyses (CSR variables as outcomes or dependent variables, with CFP and other corporate classification variables as independents) and CFP Analyses (CFP variables as dependents, with CSR variables as independents). For both sets of analyses in the study, the statistical design employed was a two-factor factorial mixed model ANOVA, with repeats on the second factor. In this chapter, results from all analyses are presented and organized by research question, or within analysis sets (*CSR Analyses* and *CFP Analyses*). Results are further categorized by ANOVAs that resulted in significant interaction effects based on the established criteria versus the non-significant interaction ANOVAs, and then are listed by independent variables for the *CSR Analyses*, and dependent variables for the *CFP Analyses*.

### **CSR Analyses**

This set of analyses was performed to answer the research question concerned with determining if differences in average performance for the seven CSR practices existed in terms of other corporate aspects; such as primary industry sector, U.S. geographical location, level of diversity and compensation for boards and officers, as well as levels of selected

measures of corporate financial performance; over a period of twelve years. For each of these separate analyses, annual data for the years 1991-2002 for all six CSR practices, as well as a total CSR score from a composite of the six were utilized as the dependent variables.

*CSR Analyses with Corporate Classification and Levels of CFP Variables*

In all analyses listed in this section, a two-factor factorial mixed model ANOVA, with *Year* as the within subjects variable, and a specified corporate aspect or classification variable for the between subjects part, with the CSR variables as the dependents was utilized. This resulted in seven analyses per corporate classification variable. Since the correlations of the six CSR variables were relatively low (See Chapter III, page 7), separate analyses were conducted for each of the six CSR variables and *Total CSR*. The results for these sets of analyses are presented by the corporate classifications, or independent variables. For each analysis of the CSR variables, the test of sphericity was violated, thus the Lower Bound estimates from the ANOVA tables were used to make decisions about significance. Furthermore, significance for interaction effects were viewed in terms of p values and in conjunction with the partial eta squared and power estimates, to determine whether main effects or simple main effects should be explored. Interaction effects with significance and at least a medium partial eta squared value ( $> .06$ ) or high power ( $> .8$ ) (Cohen, 1988) were analyzed at the simple main effects level. Interaction effects with significance and either a low partial eta squared value or low to medium power were addressed at the main effects level for the factors involved in the interaction.

## CSR Analyses without Criteria-based Significant Interaction Effects

**CSR Analyses for *U.S. Region of Headquarters*.** The corporate classification variable of *U.S. Region of Headquarters (HQ)*, or the designated geographical region (Northeast, Midwest, South, West) within the U.S. where the corporate headquarters was located, was utilized in this analysis of CSR practices. The means for the seven CSR variables, for the four levels of *U.S. Region of HQ* listed by Year, are presented in Table 18.

Table 18. Summary of Means for CSR Variables for Four Levels of *U.S. Region of HQ* from 1991-2002

CSR Variable	Year	Northeast	Midwest	South	West
<b>Community Relations</b>	1991	53.04	50.27	50.63	50.31
	1992	54.35	51.84	51.55	51.35
	1993	55.07	53.58	50.70	54.46
	1994	52.69	52.51	48.45	52.58
	1995	52.76	52.27	47.85	52.90
	1996	50.48	51.10	47.14	52.06
	1997	51.01	51.36	46.64	52.23
	1998	50.48	49.80	44.98	47.46
	1999	50.30	48.19	43.90	48.48
	2000	47.75	47.63	43.58	47.77
	2001	47.59	47.64	42.89	46.25
	2002	48.47	48.87	43.10	45.73
<b>Diversity</b>	1991	45.84	44.05	42.10	44.02
	1992	46.54	44.82	42.55	45.62
	1993	47.83	45.84	42.91	45.92
	1994	50.37	48.37	45.66	48.69
	1995	51.65	48.66	46.93	50.29
	1996	52.64	49.93	47.55	49.67
	1997	53.82	51.44	48.84	50.94
	1998	54.42	52.24	48.84	53.58
	1999	56.70	52.20	48.55	55.98
	2000	58.40	52.72	49.94	54.35
	2001	59.92	52.80	50.13	54.46
	2002	58.52	52.29	50.22	56.50
<b>Employee Relations</b>	1991	45.76	47.14	44.91	44.31
	1992	47.65	48.90	46.91	47.69
	1993	47.80	50.59	46.36	49.85
	1994	49.76	51.98	47.45	50.31
	1995	49.29	53.16	50.00	51.38
	1996	50.48	50.88	49.09	49.08
	1997	50.25	51.99	50.64	50.92
	1998	50.25	54.06	51.28	50.63
	1999	50.25	53.03	50.83	52.02
	2000	50.95	54.48	49.36	52.81
	2001	49.06	53.46	48.82	51.88
	2002	47.81	52.65	48.27	52.35



Table 18 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Northeast</b>	<b>Midwest</b>	<b>South</b>	<b>West</b>
<b>Environment</b>	1991	51.39	50.14	51.42	50.25
	1992	50.40	48.28	50.08	49.92
	1993	48.98	48.12	49.88	50.29
	1994	48.39	48.18	48.89	51.25
	1995	49.62	48.86	49.09	51.73
	1996	51.03	49.94	50.16	52.69
	1997	51.76	50.48	51.10	51.73
	1998	52.11	50.41	50.72	50.12
	1999	51.12	50.64	49.97	49.15
	2000	50.72	51.50	49.77	48.87
	2001	49.23	50.87	47.36	49.00
	2002	51.71	51.50	48.99	49.81
<b>Product</b>	1991	50.55	52.63	52.68	53.37
	1992	49.06	54.14	53.44	53.21
	1993	50.10	54.49	52.02	53.04
	1994	47.65	53.34	52.02	52.48
	1995	47.82	52.64	51.05	52.48
	1996	46.04	52.38	51.26	51.56
	1997	45.48	52.38	51.39	50.27
	1998	45.67	52.20	49.98	51.19
	1999	44.92	51.85	49.43	51.56
	2000	44.72	51.32	48.89	51.92
	2001	43.04	49.40	46.70	51.19
	2002	42.75	48.53	45.41	48.27
<b>Corporate Governance</b>	1991	56.62	56.76	55.52	56.50
	1992	55.34	56.88	53.90	55.75
	1993	51.26	55.57	52.72	54.50
	1994	49.23	54.26	51.39	52.00
	1995	46.93	50.92	51.09	48.50
	1996	48.59	53.18	51.24	50.25
	1997	48.21	52.83	51.53	47.00
	1998	45.27	49.25	49.76	45.25
	1999	47.19	50.44	48.58	47.50
	2000	45.53	49.96	47.25	44.25
	2001	46.29	49.13	43.56	43.00
	2002	44.64	47.70	45.03	42.00
<b>Total CSR</b>	1991	303.05	300.83	297.00	298.71
	1992	303.23	304.70	298.15	303.50
	1993	300.99	308.05	294.40	307.92
	1994	298.09	308.53	293.85	307.27
	1994	298.08	306.50	296.01	307.29
	1996	299.32	307.46	296.44	305.17
	1997	300.63	310.56	300.14	303.04
	1998	298.26	308.03	295.47	298.21
	1999	300.51	306.35	291.13	304.81
	2000	298.15	307.67	288.77	300.08
	2001	295.19	303.31	279.45	295.83
	2002	293.93	301.53	280.92	294.63

A two-factor factorial mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *U.S. Region of HQ*, is presented in Appendix C. The criteria for determining interaction effects to be significant were not met in any of these seven global mixed model analyses; thus, summary tables of the main effects analyses for the within subjects factor, *Year*, and the between subjects factor, *U.S. Region of HQ*, are presented in Tables 19 & 21, respectively. To determine where the differences occurred, post hoc analyses using Sidak were performed, and summary tables for the post hoc analysis for the within subjects factor is included as Table 20.

Table 19. Summary of Within Subjects Effects for *Year* and *U.S. Region of HQ* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	21925.080	1	21925.08	19.590	.000	.053	.993
	year*reghq	3174.425	3	1058.14	.945	.419	.008	.258
	Error	388367.721	347	1119.22				
<b>Diversity</b>	year	50105.894	1	50105.894	54.396	.000	.136	1.000
	year*reghq	3717.131	3	1239.044	1.345	.260	.011	.358
	Error	319630.602	347	921.126				
<b>Employee Relations</b>	year	12150.536	1	12150.536	10.087	.002	.028	.886
	year*reghq	2553.974	3	851.325	.707	.549	.006	.200
	Error	417983.083	347	1204.562				
<b>Environment</b>	year	1927.434	1	1927.434	2.100	.148	.006	.304
	year*reghq	3046.970	3	1015.657	1.106	.347	.009	.298
	Error	318542.542	347	917.990				
<b>Product</b>	year	13174.958	1	13174.958	13.909	.000	.039	.961
	year*reghq	2313.488	3	771.163	.814	.487	.007	.226
	Error	328684.788	347	947.218				
<b>Corporate Governance</b>	year	49509.268	1	49509.268	33.723	.000	.089	1.000
	year*reghq	5089.421	3	1696.474	1.156	.327	.010	.311
	Error	509429.073	347	1468.095				
<b>Total CSR<sup>a</sup></b>	year	44040.044	1	44040.044	6.566	.011	.019	.724
	year*reghq	29642.680	3	9880.893	1.473	.222	.013	.389
	Error	2327566.096	347	6707.683				

Note: reghq = U.S. Region of Headquarters.

<sup>a</sup> Although there was a significant difference found for year, a lack of a medium effect size or high power existed, thus the significance was not further interpreted.

In the case of this classification variable, there was a significant difference across time (*Year*) for the CSR variables of *Community Relations*, *Diversity*, *Employee Relations*, *Product*, and *Corporate Governance*. The trend for the latter five CSR variables was linear (See the Tests of Within-Subjects Contrasts tables in Appendix C). The specific changes over time for these variables are exhibited by the Sidak post hoc analysis in Table 20, where the twelve years are listed in descending order according to their group means relative to the CSR variable, and underline notation was used to connect those years that were judged to be not significantly different.

Table 20. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *U.S. Region of HQ* Analysis

CSR Var	Year											
<b>Com</b>	1993	1992	1994	1995	1991	1997	1996	1998	1999	2000	2002	2001
<b>Div</b>	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	1995	1997	2001	2002	1994	1996	1993	1992	1991
<b>Pro</b>	1992	1993	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Cgov</b>	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Env = Environment, Pro = Product, Cgov = Corporate Governance.

In Table 20, the highest mean score was produced in the year of 1993 and the lowest in 2001 for *Community Relations*. The two years with the highest mean scores, 1993 and 1992, differed from the three years with the lowest mean scores, 2000, 2002, and 2001. The

slope was reversed for *Diversity*, with the highest mean score being in 2002 and the lowest in 1991. For this variable, the lowest three years of 1991, 1992, and 1993 significantly differed from the years of 2002-1994 with higher scores. Although a significant difference was present for *Employee Relations*, no differences across years were found by the Sidak post hoc analysis. This could be explained in combination with the conservative nature of Sidak and low strength of association (.028). The trends for *Product* and *Corporate Governance* were similar to that of *Community Relations*, in that organizations in the earlier years generally produced higher mean scores than those in later years. For *Product*, the three years of 1992, 1993, and 1991 where the highest scores significantly differed from the year of 2002 with the lowest scores. In terms of *Corporate Governance*, organizations' scores in the earlier years had the most differences when compared to those in the later years.

As may be seen in Table 21, none of the variables met the criteria for interpreting significance differences. Thus, no post hoc analyses were performed.

Table 21. Summary of Between Groups Main Effects Analysis for *U.S. Region of HQ*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	reghq	12411.293	3	4137.098	1.866	.135	.016	.483
	Error	769310.943	347	2217.034				
<b>Diversity</b>	reghq	21363.170	3	7121.057	3.360	.019	.028	.760
	Error	735428.253	347	2119.390				
<b>Employee Relations</b>	reghq	7421.641	3	2473.880	1.195	.312	.010	.320
	Error	718618.208	347	2070.946				
<b>Environment</b>	reghq	438.077	3	146.026	.058	.982	.001	.060
	Error	870122.086	347	2507.556				
<b>Product</b>	reghq	22916.059	3	7638.686	3.299	.021	.028	.751
	Error	803469.505	347	2315.474				
<b>Corporate Governance</b>	reghq	9084.744	3	3028.248	1.771	.152	.015	.461
	Error	593290.318	347	1709.770				

Table 21 Continued

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
Total CSR	reghq	110146.382	3	36715.461	1.907	.128	.016	.492
	Error	6680922.540	347	19253.379				

Note: reghq = U.S. Region of Headquarters.

**CSR Analyses for U.S. Region of Incorporation.** The next analysis to examine the CSR variables utilizing a two-factor factorial mixed model ANOVA included the corporate classification variable of *U.S. Region of Incorporation (Inc.)*, the designated U.S. region where the company was incorporated. Although the corporations were divided among four U.S. regions (Northeast, Midwest, South, West), corporations that were incorporated within the West region were omitted from this analysis due to having too small of a number (less than 30) for appropriate cell sizes. The means for the seven CSR variables for the three levels of *U.S. Region of Inc.*, listed by year, are presented in Table 22.

Table 22. Summary of Means for CSR Variables for Three Levels of *U.S. Region of Inc.* from 1991-2002

CSR Variable	Year	Northeast	Midwest	South
Community Relations	1991	56.84	52.90	49.01
	1992	58.42	55.50	50.02
	1993	59.70	58.10	50.55
	1994	54.96	57.75	49.05
	1995	56.37	56.71	48.55
	1996	52.12	54.98	48.34
	1997	53.54	54.63	48.35
	1998	52.77	52.56	46.42
	1999	51.35	51.38	45.87
	2000	48.35	50.54	45.07
	2001	48.07	50.73	44.50
	2002	48.89	50.73	45.20
Diversity	1991	48.63	42.48	43.16
	1992	49.91	43.12	43.73
	1993	51.74	43.44	44.67
	1994	53.05	44.98	47.82
	1995	54.77	45.96	48.70
	1996	54.84	47.65	49.49
	1997	55.72	49.25	50.97
	1998	56.72	50.63	51.73
	1999	58.26	48.46	53.28
	2000	59.56	49.71	53.78
	2001	62.72	49.52	53.63
	2002	60.79	49.40	53.84

Table 22 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Northeast</b>	<b>Midwest</b>	<b>South</b>
<b>Employee Relations</b>	1991	46.49	48.46	45.20
	1992	48.04	50.15	47.43
	1993	48.32	52.00	47.95
	1994	49.72	54.62	48.85
	1995	48.74	54.62	50.56
	1996	50.72	52.00	49.52
	1997	51.02	52.63	50.71
	1998	49.75	54.94	51.57
	1999	48.89	54.48	51.53
	2000	49.88	56.77	51.19
	2001	48.18	55.38	50.19
	2002	47.35	55.08	49.37
<b>Environment</b>	1991	48.63	53.06	50.41
	1992	46.86	51.60	49.47
	1993	45.07	50.79	49.78
	1994	44.32	50.77	49.26
	1995	46.37	53.19	49.48
	1996	49.35	53.67	50.19
	1997	49.65	54.48	50.81
	1998	49.65	55.94	50.07
	1999	48.61	56.10	50.00
	2000	49.21	56.92	49.35
	2001	47.72	55.60	48.35
	2002	48.61	55.92	50.24
<b>Product</b>	1991	52.09	51.35	52.27
	1992	51.75	53.02	52.23
	1993	52.28	54.50	51.87
	1994	50.91	52.83	51.07
	1995	48.58	53.02	50.88
	1996	46.91	52.63	50.70
	1997	46.25	53.38	50.08
	1998	47.07	53.38	49.29
	1999	45.74	52.83	48.93
	2000	46.58	52.08	48.66
	2001	44.05	50.62	46.93
	2002	44.21	49.52	45.52
<b>Corporate Governance</b>	1991	56.32	58.50	56.15
	1992	55.63	58.50	54.94
	1993	49.47	56.50	54.10
	1994	50.16	56.00	50.89
	1995	47.42	54.00	48.41
	1996	48.56	53.25	50.77
	1997	44.91	53.75	50.41
	1998	43.54	51.75	47.45
	1999	49.02	53.25	47.02
	2000	47.42	53.50	45.09
	2001	48.11	53.50	43.46
	2002	46.96	52.00	43.09
<b>Total CSR</b>	1991	308.86	306.50	296.04
	1992	310.53	311.60	297.67
	1993	306.53	315.02	298.83

Table 22 Continued

CSR Variable	Year	Northeast	Midwest	South
	1994	303.25	316.73	296.88
	1994	302.25	317.50	296.59
	1996	302.60	314.21	299.04
	1997	301.16	318.15	301.39
	1998	299.53	319.21	296.57
	1999	301.89	316.48	296.65
	2000	301.05	319.60	293.21
	2001	298.96	315.31	287.10
	2002	296.88	312.62	287.24

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *U.S. Region of Inc.*, is presented in Appendix D. The criteria for determining interaction effects to be significant were not met in any of the seven global mixed model analyses; thus, summary tables of the main effects analyses for the within subjects factor, *Year*, and the between subjects factor, *U.S. Region of Inc.*, are presented in Tables 23 & 25, respectively. To determine where the differences occurred, post hoc analyses using Sidak were performed, and summary tables for the post hoc analysis for each factor are included as Tables 24 and 26.

Table 23. Summary of Within Subjects Effects for *Year* and *U.S. Region of Inc.* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	18785.532	1	18785.532	16.644	.000	.049	.982
	year*reginc	2954.466	2	1477.233	1.309	.272	.008	.282
	Error	362297.405	321	1128.652				
<b>Diversity</b>	year	32036.162	1	32036.162	34.751	.000	.098	1.000
	year*reginc	2016.706	2	1008.353	1.094	.336	.007	.242
	Error	295920.945	321	921.872				
<b>Employee Relations<sup>a</sup></b>	year	6499.686	1	6499.686	5.500	.020	.017	.647
	year*reginc	2134.428	2	1067.214	.903	.406	.006	.206
	Error	379338.241	321	1181.739				
<b>Environment<sup>b</sup></b>	year	4192.294	1	4192.294	4.637	.032	.014	.574
	year*reginc	3111.022	2	1555.511	1.721	.181	.011	.360
	Error	290203.503	321	904.061				
<b>Product</b>	year	9271.077	1	9271.077	9.588	.002	.029	.870
	year*reginc	2452.995	2	1226.498	1.268	.283	.008	.275
	Error	310386.249	321	966.935				

Table 23 Continued

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Corporate Governance</b>	year	24709.408	1	24709.408	16.864	.000	.050	.984
	year*reginc	7592.233	2	3796.117	2.591	.077	.016	.515
	Error	470336.811	321	1465.224				
<b>Total CSR</b>	year	14528.130	1	14528.130	2.148	.144	.007	.309
	year*reginc	22747.726	2	11373.863	1.681	.188	.010	.353
	Error	2171322.009	321	6764.243				

Note: reginc = U.S. Region of Incorporation.

<sup>a, b</sup> The significant difference for year was not interpreted because of the lack of either a medium effect size or high power.

In the case of the classification variable, *U.S. Region of Inc.*, there was a significant difference across time (*Year*) for the CSR variables of *Community Relations*, *Diversity*, *Product*, and *Corporate Governance*. The trend for all of the previous four variables was linear (See the Tests of Within-Subjects Contrasts tables in Appendix D). Refer to Table 24 for the specific changes that occurred over time for these CSR variables with significant differences. In Table 24, the twelve years are listed in descending order according to their group means relative to the CSR variable, and underline notation is used to represent the years that are not significantly different from each other.

Table 24. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *U.S. Region of Inc.* Analysis

CSR Var	Year											
<b>Com</b>	1993	1992	1994	1995	1991	1997	1996	1998	1999	2002	2000	2001
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Pro</b>	1993	1992	1991	1994	1995	1996	1998	1997	1999	2000	2001	2002
<b>Cgov</b>	1991	1992	1993	1994	1996	1995	1999	1997	2000	2001	1998	2002

Note: Var = Variable, Com = Community Relations, Div = Diversity, Pro = Product, Cgov = Corporate Governance.



A review of Table 24 reveals that no significant differences across years were found by the Sidak post hoc analysis for the variables of *Community Relations*, *Product*, and *Corporate Governance*, even though significant differences and at least a medium effect size or high power were present in the within subjects analysis. The lack of differences found from the post hoc analysis could be attributed to the conservative nature of Sidak and also the low to medium strengths of association for these variables (.049 for *Community Relations*; .029 for *Product*; and .050 for *Corporate Governance*). In terms of *Diversity*, organizations' scores in later years generally performed higher than those in earlier years, with 2001 being the high scorer and 1991 the low. Significant differences were found among years with the lowest scores of 1991 and 1992 from years with higher scores of 2001-1995.

Table 25. Summary of Between Groups Main Effects Analysis for *U.S. Region of Inc.*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	reginc	32095.976	2	16047.988	7.525	.001	.045	.943
	Error	684589.910	321	2132.679				
<b>Diversity</b>	reginc	26869.616	2	13434.808	6.672	.001	.040	.913
	Error	646340.801	321	2013.523				
<b>Employee Relations</b>	reginc	8749.018	2	4374.509	2.131	.120	.013	.436
	Error	658836.619	321	2052.451				
<b>Environment</b>	reginc	13262.704	2	6631.352	2.625	.074	.016	.521
	Error	810781.744	321	2525.800				
<b>Product</b>	reginc	6360.433	2	3180.217	1.336	.264	.008	.288
	Error	764378.483	321	2381.241				
<b>Corporate Governance<sup>a</sup></b>	reginc	14784.637	2	7392.318	4.246	.015	.026	.741
	Error	558914.899	321	1741.168				
<b>Total CSR</b>	reginc	200240.448	2	100120.224	5.294	.005	.032	.834
	Error	6071042.672	321	18912.906				

Note: reginc = U.S. Region of Incorporation.

<sup>a</sup> The significant difference between groups was not interpreted because it did not have a medium effect size or high power.

As noted in Table 25, between groups significance was found in the three CSR variables, *Community Relations*, *Diversity*, and *Total CSR*. Post hocs using Sidak were conducted, and the results of these tests are summarized in Table 26. The three geographical regions are listed in descending order of performance means, and underline notation is used to represent the levels of the variables that are not significantly different from each other.

Table 26. Summary of Sidak Post Hoc Analysis for Main Effect of *U.S. Region of Inc.*

CSR Variable	US Region of Incorporation		
<b>Community Relations</b>	Midwest	Northeast	South
<b>Diversity</b>	Northeast	South	Midwest
<b>Total CSR</b>	Midwest	Northeast	South

In these Sidak post hoc analyses, it can be seen that organizations located in the South region of the U.S. exhibited significantly lower means than those incorporated both in the Midwest and Northeast for the *Community Relations* variable, and significantly lower than in the Midwest for the variable of *Total CSR*. Organizations in the Northeast ranked highest over both those in the South and Midwest for *Diversity*.

**CSR Analyses for *Primary Standard Industrial Classification*.** The IV utilized in this set of analyses was *Primary Standard Industrial Classification (PSIC)*, which represents the standard industrial category of the company's primary business. Four *PSIC* groups (Manufacturing, Services, Transportation and Utilities, and Wholesale & Retail Trade) emerged for these companies (See Chapter III, page 20). The means for the seven CSR variables for the four levels of *PSIC*, listed by Year, are presented in Table 27.

Table 27. Summary of Means for CSR Variables for Four Levels of *PSIC* from 1991-2002

CSR Variable	Year	Manufacturing	Services	Transportation & Utilities	Wholesale & Retail Trade
<b>Community Relations</b>	1991	49.96	55.70	53.22	49.02
	1992	51.74	54.42	55.06	50.64
	1993	52.93	58.74	54.33	50.10
	1994	50.68	57.66	50.14	50.64
	1995	50.01	54.96	52.16	51.72
	1996	48.53	54.06	53.06	49.56
	1997	48.68	55.34	51.59	50.64
	1998	46.64	55.54	49.08	49.42
	1999	46.76	55.36	47.31	46.38
	2000	46.05	52.46	46.39	44.22
	2001	45.35	52.46	46.24	43.88
	2002	45.39	53.20	48.63	45.50
<b>Diversity</b>	1991	44.43	42.18	43.71	44.22
	1992	45.12	43.50	44.55	45.24
	1993	45.53	45.60	45.78	46.90
	1994	48.55	47.20	49.02	48.50
	1995	48.95	48.94	50.27	50.16
	1996	50.17	47.70	51.29	50.50
	1997	51.45	49.04	53.53	51.16
	1998	52.19	49.56	54.63	53.04
	1999	53.58	53.54	52.73	50.86
	2000	53.67	55.34	54.14	53.02
	2001	54.21	56.50	54.39	53.32
	2002	54.80	55.36	53.06	53.10
<b>Employee Relations</b>	1991	47.23	45.52	41.51	46.00
	1992	49.32	47.60	43.31	47.28
	1993	50.47	47.12	43.80	47.76
	1994	51.15	47.60	50.98	47.92
	1995	52.55	48.24	49.02	50.00
	1996	51.79	47.28	45.10	50.64
	1997	52.23	47.12	48.86	51.12
	1998	52.63	51.12	49.35	49.84
	1999	53.26	49.84	48.37	47.28
	2000	53.71	51.76	49.18	45.68
	2001	51.93	50.80	49.02	46.00
	2002	51.08	49.84	49.02	45.68
<b>Environment</b>	1991	50.95	51.62	52.69	49.24
	1992	50.10	51.28	51.16	47.20
	1993	49.34	50.60	49.94	48.38
	1994	49.63	50.90	48.88	46.20
	1995	50.52	51.26	46.45	48.04
	1996	51.63	50.26	51.12	49.06
	1997	52.16	51.10	51.29	49.06
	1998	52.36	49.92	50.43	49.06
	1999	51.96	49.42	50.10	48.38
	2000	51.07	50.44	50.96	49.58
	2001	50.48	50.10	45.59	49.58
	2002	52.59	51.44	45.78	49.58

Table 27 Continued

CSR Variable	Year	Manufacturing	Services	Transportation & Utilities	Wholesale & Retail Trade
<b>Product</b>	1991	52.94	52.16	47.92	54.30
	1992	54.13	50.64	47.92	53.52
	1993	54.28	49.88	47.92	53.52
	1994	52.19	49.30	48.10	52.56
	1995	51.47	50.06	49.08	50.64
	1996	50.70	48.92	50.06	50.26
	1997	50.45	49.88	49.88	48.92
	1998	50.87	49.48	48.12	48.92
	1999	50.87	47.56	45.98	50.46
	2000	50.35	47.38	46.37	50.06
	2001	49.45	44.52	44.41	47.58
	2002	48.48	43.38	42.86	46.44
<b>Corporate Governance</b>	1991	56.24	56.74	56.20	56.48
	1992	55.34	58.56	54.35	53.88
	1993	54.10	54.66	50.90	52.32
	1994	51.81	53.10	47.71	53.36
	1995	48.98	52.06	47.71	51.80
	1996	49.67	52.58	50.90	54.92
	1997	49.05	52.06	48.51	54.92
	1998	46.07	49.72	48.51	51.28
	1999	47.73	49.98	46.39	54.40
	2000	46.90	48.42	45.86	48.94
	2001	46.07	46.08	44.27	47.90
	2002	45.18	46.08	43.20	47.38
<b>Total CSR</b>	1991	301.58	303.70	295.10	299.10
	1992	305.60	305.76	296.12	297.66
	1993	306.50	306.38	292.55	298.92
	1994	303.98	305.50	294.90	299.20
	1994	302.48	305.52	294.69	302.36
	1996	302.52	300.68	301.57	305.00
	1997	304.07	304.42	303.69	305.92
	1998	300.77	305.28	300.14	301.58
	1999	304.15	305.66	290.80	297.78
	2000	301.82	305.88	292.88	291.52
	2001	297.52	300.48	283.90	288.28
	2002	297.53	299.28	282.39	287.66

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *PSIC*, is presented in Appendix E. The main effects results for the within subjects variable of *Year* are listed in Table 28, and reveal a significant difference across years for the CSR variables of *Community Relations*, *Diversity*, *Product*, and *Corporate Governance*. The trends for these are similar in that they are all linear (See the



Table 29 Continued

CSR Var	Year											
	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Div</b>												
<b>Pro</b>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Cgov</b>	1991	1992	1993	1996	1994	1997	1995	1999	1998	2000	2001	2002

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Pro = Product, Cgov = Corporate Governance.

In Table 29, the highest mean scores were in 2001, with the lowest in 1991 for *Diversity*. For *Community Relations*, companies' average scores were lowest in the two years of 2000 and 2001, which significantly differed from the highest in the year of 1993. Similarly for *Product*, the lowest scores in 2002 differed from those in the three years of 1991, 1992, and 1993 with the highest scores, although the year of 2000 was shown to differ too. Likewise, for *Corporate Governance*, the two years with the lowest scores of 2002 and 2001 differed from the two years of 1991 and 1992 with the highest scores. The pattern for the differences among years for *Diversity* varied from the other three variables in that the significant differences were mainly among performances from the three years of 1991, 1992, and 1993 with the lowest scores, and the remaining years where organizations performed higher.

In reviewing the between groups main effects table (Table 30), one can see that significant differences between *PSIC* groups were found only for the dependent CSR variable

of *Community Relations*; however the criteria for also needing to have either a medium effect size or high power was not met. Thus, no post hoc analysis was conducted.

Table 30. Summary of Between Groups Main Effects Analysis for *PSIC*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	PSIC	21073.200	3	7024.400	3.126	.026	.027	.725
	Error	748308.467	333	2247.173				
<b>Diversity</b>	PSIC	363.114	3	121.038	.055	.983	.000	.060
	Error	736401.941	333	2211.417				
<b>Employee Relations</b>	PSIC	12642.351	3	4214.117	2.066	.104	.018	.527
	Error	679162.316	333	2039.526				
<b>Environment</b>	PSIC	3406.104	3	1135.368	.473	.701	.004	.146
	Error	798847.703	333	2398.942				
<b>Product</b>	PSIC	9258.960	3	3086.320	1.293	.277	.012	.345
	Error	794782.857	333	2386.735				
<b>Corporate Governance</b>	PSIC	5658.178	3	1886.059	1.078	.359	.010	.291
	Error	582724.015	333	1749.922				
<b>Total CSR</b>	PSIC	43616.967	3	14538.989	.758	.518	.007	.212
	Error	6387567.652	333	19181.885				

**CSR Analyses for *Level of Diversity of Corporate Leaders*.** The corporate classification variable of *Level of Diversity of Corporate Leaders* was utilized for this set of analyses. Because *Level of Diversity of Corporate Leaders* is a subset of the CSR variable *Diversity*, *Diversity* was omitted as a dependent variable for this set of analyses. Furthermore, the dependent variable of *Total CSR* was also omitted, due to it being a composition of the CSR variables, which included *Diversity*. Thus, there were five dependent variables for this set of analyses. There were three levels (Low, Medium, High) of *Level of Diversity of Corporate Leaders*, and the means for the five analyzed CSR variables for each level, listed by year, are presented in Table 31.

Table 31. Summary of Means for CSR Variables for *Level of Diversity of Corporate Leaders* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	45.97	49.28	61.13
	1992	45.74	50.82	63.89
	1993	45.80	51.57	66.55
	1994	45.87	50.40	60.93
	1995	45.73	49.47	62.06
	1996	45.56	48.92	57.88
	1997	44.74	49.55	58.49
	1998	42.77	48.87	55.25
	1999	42.49	47.79	54.75
	2000	42.49	46.56	52.40
	2001	42.13	46.35	51.48
	2002	41.90	47.33	52.61
<b>Employee Relations</b>	1991	45.03	44.58	48.45
	1992	45.70	46.99	51.91
	1993	46.91	47.42	52.55
	1994	47.18	49.40	54.45
	1995	48.05	50.71	55.00
	1996	48.45	49.23	53.19
	1997	49.39	50.00	54.40
	1998	50.01	51.38	54.32
	1999	49.07	51.05	55.03
	2000	50.34	51.38	54.56
	2001	49.14	50.39	53.27
	2002	48.82	49.18	53.00
<b>Environment</b>	1991	51.55	50.05	51.23
	1992	50.69	48.43	50.08
	1993	51.46	47.22	49.02
	1994	49.13	49.15	47.95
	1995	49.97	49.39	48.98
	1996	49.75	51.01	51.57
	1997	50.16	51.36	52.34
	1998	50.24	51.30	51.30
	1999	50.03	50.67	50.44
	2000	50.33	50.68	50.08
	2001	48.34	49.56	49.58
	2002	49.40	50.42	52.47
<b>Product</b>	1991	52.24	51.71	52.72
	1992	51.68	52.71	52.61
	1993	51.67	52.45	53.17
	1994	51.42	50.15	52.73
	1995	51.82	50.14	50.56
	1996	50.94	49.88	49.47
	1997	50.30	49.55	49.58
	1998	49.82	49.49	49.05
	1999	49.43	49.55	47.84
	2000	49.19	49.35	47.27
	2001	47.83	47.86	44.88
	2002	47.12	46.68	43.35
<b>Corporate Governance</b>	1991	56.56	55.84	57.00
	1992	56.56	55.22	54.64



Table 31 Continued

CSR Variable	Year	Low	Medium	High
	1993	55.25	53.53	50.94
	1994	53.50	52.55	48.14
	1995	52.19	50.14	44.74
	1996	55.58	49.97	46.36
	1997	56.78	48.45	44.44
	1998	53.39	46.76	41.19
	1999	53.39	48.45	42.23
	2000	51.54	46.14	42.82
	2001	50.66	44.80	41.34
	2002	50.23	44.36	39.86

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *Level of Diversity of Corporate Leaders*, is presented in Appendix F. The main effects results for the within subjects variable of *Year* are listed in Table 32, and reveal a significant difference across years for four (*Community Relations*, *Employee Relations*, *Product*, *Corporate Governance*) of the five possible CSR variables. The trend for the latter four variables was linear (See the Tests of Within-Subjects Contrasts tables in Appendix F). Specific differences across years for each variable, determined by a Sidak post hoc analysis, are noted in Table 33 with underline notation representing years that are not significantly different from one another. Note that the twelve years are presented for each CSR variable in descending order according to their group means in Table 33.

Table 32. Summary of Within Subjects Effects for *Year* and *Level of Diversity of Corporate Leaders* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	26907.562	1	26907.562	24.597	.000	.066	.999
	year*Divlevel	8797.712	2	4398.856	4.021	.019	.022	.716
	Error	382873.386	350	1093.924				
<b>Employee Relations</b>	year	11690.612	1	11690.612	9.741	.002	.027	.875
	year*Divlevel	1131.983	2	565.991	.472	.624	.003	.127
	Error	420037.220	350	1200.106				
<b>Environment</b>	year	2664.990	1	2664.990	2.908	.089	.008	.398
	year*Divlevel	2866.375	2	1433.187	1.564	.211	.009	.331
	Error	320793.937	350	916.554				

Table 32 Continued

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Product</b>	year	17087.906	1	17087.906	18.119	.000	.049	.989
	year*Divlevel	2437.740	2	1218.870	1.292	.276	.007	.280
	Error	330077.289	350	943.078				
<b>Corporate Governance</b>	year	52043.621	1	52043.621	36.014	.000	.093	1.000
	year*Divlevel	10846.288	2	5423.144	3.753	.024	.021	.684
	Error	505783.121	350	1445.095				

Note: Divlevel = Level of Diversity of Corporate Leaders.

Table 33. Summary of Sidak Post Hoc Analysis for Main Effect of Year in Level of Diversity of Corporate Leaders Analysis

CSR Var	Year											
<b>Com</b>	1993	1992	1995	1994	1991	1997	1996	1998	1999	2002	2000	2001
<b>Emp</b>	2000	1998	1999	1997	1995	2001	1994	2002	1996	1993	1992	1991
<b>Pro</b>	1993	1992	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Cgov</b>	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002

Note: Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Pro = Product, Cgov = Corporate Governance.

Reviewing Table 33 reveals that no significant differences were found using the Sidak post hoc analysis for the variable of *Employee Relations*, although a significant difference and high power were present in the within subjects analysis. A low strength of association (.027) for this variable and Sidak being conservative could account for the lack of differences found in this case. For *Community Relations*, scores in the three lowest years of 2001, 2000, and 2002 were significantly different than those in the three highest years of 1993, 1992, and 1995. For *Product*, the year of 2002 with the lowest scores significantly differed from the seven years with highest scores and the year of 2000. In terms of *Corporate*

*Governance*, there seemed to be a split in the time period, with significant differences occurring between performance scores in the earlier and later years.

Results of analyzing the differences between groups of *Level of Diversity of Corporate Leaders* are presented in Table 34. In this table, significant differences between groups were found for the dependent CSR variables of *Community Relations* and *Corporate Governance*. The results from a Sidak post hoc analysis for these two CSR variables can be seen in Table 35.

Table 34. Summary of Between Groups Main Effects Analysis for *Level of Diversity of Corporate Leaders*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	Divlevel	118057.988	2	59028.994	31.064	.000	.151	1.000
	Error	665072.836	350	1900.208				
<b>Employee Relations<sup>a</sup></b>	Divlevel	17394.150	2	8697.075	4.250	.015	.024	.741
	Error	716308.488	350	2046.596				
<b>Environment</b>	Divlevel	154.171	2	77.085	.031	.969	.000	.055
	Error	870903.143	350	2488.295				
<b>Product</b>	Divlevel	444.481	2	222.241	.094	.910	.001	.064
	Error	826951.085	350	2362.717				
<b>Corporate Governance</b>	Divlevel	36410.017	2	18205.009	11.248	.000	.060	.992
	Error	566498.919	350	1618.568				

Note: Divlevel = Level of Diversity of Corporate Leaders.

<sup>a</sup> The significant difference for year was not interpreted due to the lack of a medium effect size or high power.

Table 35. Summary of Sidak Post Hoc Analysis for Main Effect of *Level of Diversity of Corporate Leaders*

CSR Variable	Level of Diversity of Corporate Leaders		
<b>Community Relations</b>	High	Medium	Low
<b>Corporate Governance</b>	Low	Medium	High

In Table 35, the levels of *Level of Diversity of Corporate Leaders* are listed from left to right in descending order according to their group means relative to the CSR variables. As revealed in the table, organizations with a High *Level of Diversity of Corporate Leaders*

outperformed those with Medium and Low levels for *Community Relations*, while the opposite was found to be true for *Corporate Governance*, where organizations with the Low *Level of Diversity of Corporate Leaders* outperformed those with Medium and High levels. In terms of significant differences between the levels for the three CSR variables, all three groups were significantly different for *Community Relations*; while the Low level differed from both the Medium and High groups for *Corporate Governance*.

**CSR Analyses for *Level of Compensation of Corporate Leaders*.** The corporate classification variable of *Level of Compensation of Corporate Leaders* was utilized for this set of analyses. Similar to the last reported set of analyses, the dependent variables in this set were limited to those CSR variables that did not include aspects of corporate governance, or the variables of *Corporate Governance* and *Total CSR*. The means for the five CSR variables for the three groups of *Level of Compensation of Corporate Leaders* (Low, Medium, High), listed by Year, are presented in Table 36.

Table 36. Summary of Means for CSR Variables for *Level of Compensation for Corporate Leaders* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	54.04	50.64	45.09
	1992	56.14	51.79	44.31
	1993	57.07	53.23	42.77
	1994	53.06	52.03	43.54
	1995	52.96	51.56	45.09
	1996	51.61	50.17	44.31
	1997	52.30	50.04	44.31
	1998	48.81	48.75	45.09
	1999	47.75	48.13	45.37
	2000	44.98	47.70	45.37
	2001	44.75	47.08	45.37
	2002	47.09	46.91	45.37
<b>Diversity</b>	1991	46.95	42.73	43.20
	1992	48.61	43.19	43.23
	1993	49.91	43.84	43.71
	1994	53.52	46.13	45.11
	1995	55.57	46.79	45.11
	1996	56.85	47.45	44.69

Table 36 Continued

CSR Variable	Year	Low	Medium	High
	1997	58.60	48.70	45.11
	1998	58.34	49.87	46.97
	1999	60.77	50.30	46.31
	2000	61.58	51.06	46.89
	2001	63.40	50.94	47.37
	2002	62.36	51.01	48.17
<b>Employee Relations</b>	1991	47.01	44.62	48.17
	1992	50.00	46.21	50.46
	1993	50.60	47.16	50.46
	1994	50.52	49.85	48.40
	1995	51.12	50.87	50.23
	1996	52.10	48.82	50.23
	1997	52.78	49.82	51.63
	1998	54.43	50.32	51.17
	1999	54.12	50.09	50.71
	2000	55.39	50.27	50.23
	2001	53.30	49.74	48.40
	2002	51.96	49.40	47.71
<b>Environment</b>	1991	47.46	51.51	57.23
	1992	45.89	50.22	57.23
	1993	44.94	49.98	56.51
	1994	44.69	49.68	56.51
	1995	45.31	50.11	58.43
	1996	46.87	51.64	57.00
	1997	46.95	52.15	58.43
	1998	46.10	52.04	59.14
	1999	45.87	51.45	57.94
	2000	45.41	51.70	57.94
	2001	45.56	49.72	56.74
	2002	48.17	50.80	56.74
<b>Product</b>	1991	50.91	51.60	59.11
	1992	51.02	51.88	59.11
	1993	51.83	51.65	58.29
	1994	51.20	50.06	58.29
	1995	49.22	50.47	57.74
	1996	47.97	49.97	57.74
	1997	46.90	50.07	57.20
	1998	45.65	50.16	57.20
	1999	44.84	50.12	55.83
	2000	44.11	49.75	57.20
	2001	41.16	48.67	55.83
	2002	39.82	47.59	55.29

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *Level of Compensation of Corporate Leaders*, is presented in Appendix G. The main effects results for the within subjects variable of *Year* are listed in Table 37, and

reveal a significant difference across years for *Diversity* and *Product*. The trend for the variable of *Diversity* was linear (See the Tests of Within-Subjects Contrasts tables in Appendix G). Table 38 is a summary of the Sidak post hoc analysis, where the twelve years are listed in descending order according to the group means relative to each CSR variable, and are connected with underlines that note the years which are not significantly different.

Table 37. Summary of Within Subjects Effects for *Year* and *Level of Compensation of Corporate Leaders* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations<sup>a</sup></b>	year	7906.177	1	7906.177	7.214	.008	.020	.764
	year*complevel	8082.439	2	4041.220	3.687	.026	.021	.676
	Error	383588.658	350	1095.968				
<b>Diversity</b>	year	27074.884	1	27074.884	29.915	.000	.079	1.000
	year*complevel	6989.782	2	3494.891	3.862	.022	.022	.697
	Error	316766.115	350	905.046				
<b>Employee Relations<sup>b</sup></b>	year	5514.840	1	5514.840	4.614	.032	.013	.572
	year*complevel	2845.742	2	1422.871	1.190	.305	.007	.260
	Error	418323.461	350	1195.210				
<b>Environment</b>	year	1255.292	1	1255.292	1.362	.244	.004	.214
	year*complevel	1004.078	2	502.039	.545	.581	.003	.140
	Error	322656.234	350	921.875				
<b>Product</b>	year	10330.332	1	10330.332	11.121	.001	.031	.914
	year*complevel	7384.804	2	3692.402	3.975	.020	.022	.711
	Error	325130.225	350	928.944				

Note: complevel = Level of Compensation of Corporate Leaders.

<sup>a, b</sup> The significant difference for year was not interpreted because of a lack of the established criteria for either a medium effect size or high power.

Table 38. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of Compensation of Corporate Leaders* Analysis

CSR Var	Year											
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
	<hr/>											
<b>Pro</b>	1992	1993	1991	1994	1995	1996	1997	1998	2000	1999	2001	2002
	<hr/>											

Note: Var = Variable, Div = Diversity, Pro = Product.

In Table 38, no significant differences across years for the variable of *Product* were found using the Sidak post hoc analysis, although a significant difference and high power were present in the within subjects analysis. This could be partially explained by the conservative nature of Sidak and the low strength of association (.031) for this variable. For *Diversity*, organizations generally produced higher performance scores during later years than in the earlier years. The significant differences were found mostly between the three years of 1991, 1992, and 1993 with the lowest scores, and the remaining years with higher scores, although the three years of 2001, 2002, and 2000 with the highest scores were shown to differ from the two years with the lowest scores as well.

Results of analyzing the differences between groups of *Level of Compensation of Corporate Leaders* are listed in Table 39. In this table, there are significant differences between groups for the dependent CSR variables of *Diversity*, *Environment*, and *Product*. The results from a Sidak post hoc analysis for the aforementioned three CSR variables can be seen in Table 40.

Table 39. Summary of Between Groups Main Effects Analysis for *Level of Compensation of Corporate Leaders*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	complevel	12458.967	2	6229.483	2.829	.060	.016	.554
	Error	770671.857	350	2201.920				
<b>Diversity</b>	complevel	74417.665	2	37208.833	19.025	.000	.098	1.000
	Error	684527.509	350	1955.793				
<b>Employee Relations</b>	complevel	7744.693	2	3872.346	1.867	.156	.011	.388
	Error	725957.945	350	2074.166				
<b>Environment</b>	complevel	45131.992	2	22565.996	9.563	.000	.052	.980
	Error	825925.322	350	2359.787				
<b>Product</b>	complevel	34219.921	2	17109.961	7.550	.001	.041	.944
	Error	793175.645	350	2266.216				

Note: complevel = Level of Compensation of Corporate Leaders.

Table 40. Summary of Sidak Post Hoc Analysis of Main Effect of *Level of Compensation of Corporate Leaders*

CSR Variable	Level of Compensation of Corporate Leaders		
Diversity	Low	Medium	High
Environment	High	Medium	Low
Product	High	Medium	Low

The levels of *Level of Compensation of Corporate Leaders* are listed in descending order according to their group means relative to each CSR variable in Table 40. In reviewing this table, one can notice that organizations with the High *Level of Compensation of Corporate Leaders* outperformed both those with Medium and Low levels for the CSR variables of *Environment* and *Product*, although the difference from the High level to these two was only significant for the variable of *Product*. The results ranged in the other direction for *Diversity*, with organizations with a Low *Level Compensation of Corporate Leaders* significantly outperforming those with Medium and High levels, respectively.

**CSR Analyses for *Level of Price Volatility*.** The corporate classification variable employed for this set of analyses was *Level of Price Volatility*. There were three levels (Low, Medium, High) assigned to *Level of Price Volatility*. The means for the seven CSR variables for this classification variable, listed by year, are presented in Table 41.

Table 41. Summary of Means for CSR Variables for *Level of Price Volatility* from 1991-2002

CSR Variable	Year	Low	Medium	High
Community Relations	1991	49.76	52.84	48.28
	1992	53.52	53.62	48.28
	1993	54.56	54.50	49.85
	1994	51.21	53.26	48.40
	1995	50.49	52.58	49.53
	1996	49.24	51.54	47.24
	1997	49.47	51.65	47.35
	1998	46.29	50.00	46.65
	1999	45.79	48.84	46.43
	2000	44.63	47.60	45.92



Table 41 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	2001	43.51	47.10	45.92
	2002	44.79	48.02	45.29
<b>Diversity</b>	1991	45.07	44.11	43.12
	1992	46.06	44.75	44.06
	1993	46.20	45.65	45.13
	1994	49.73	48.06	47.43
	1995	50.09	49.23	48.50
	1996	50.94	50.02	49.22
	1997	53.16	51.02	50.21
	1998	54.05	51.83	50.49
	1999	54.73	51.84	53.78
	2000	55.95	52.46	53.66
	2001	56.85	53.24	53.30
	2002	57.13	52.87	53.48
<b>Employee Relations</b>	1991	43.30	46.02	47.21
	1992	46.56	47.92	48.70
	1993	48.14	48.29	49.16
	1994	50.74	49.31	50.19
	1995	49.81	50.92	52.05
	1996	46.19	50.88	51.49
	1997	47.86	51.62	52.15
	1998	48.98	52.24	52.63
	1999	47.86	51.73	53.93
	2000	50.37	51.21	53.92
	2001	50.00	49.92	51.97
	2002	49.81	49.23	51.42
<b>Environment</b>	1991	48.63	51.11	52.73
	1992	47.06	49.01	53.03
	1993	45.49	49.10	52.35
	1994	46.13	48.02	52.83
	1995	45.14	49.77	52.83
	1996	48.01	50.15	54.00
	1997	47.71	50.83	54.40
	1998	46.84	51.13	53.91
	1999	46.56	50.20	53.81
	2000	48.23	49.97	52.85
	2001	45.73	48.76	52.35
	2002	47.69	50.13	53.81
<b>Product</b>	1991	49.62	52.58	54.07
	1992	50.05	52.54	54.77
	1993	49.40	52.92	54.55
	1994	48.84	51.19	54.10
	1995	47.81	51.03	53.56
	1996	48.93	49.09	53.55
	1997	48.62	48.32	54.10
	1998	47.29	47.99	54.55
	1999	46.72	47.83	53.99
	2000	47.05	47.38	53.09
	2001	45.84	45.28	51.88
	2002	44.73	44.06	50.90

Table 41 Continued

CSR Variable	Year	Low	Medium	High
<b>Corporate Governance</b>	1991	55.79	56.92	55.79
	1992	54.73	55.42	55.94
	1993	51.26	53.54	54.73
	1994	50.65	51.89	51.71
	1995	49.44	48.58	50.50
	1996	52.31	51.21	48.38
	1997	50.65	50.54	48.84
	1998	47.78	47.38	47.17
	1999	48.38	48.51	48.99
	2000	48.23	46.33	47.48
	2001	46.42	45.80	45.36
	2002	44.91	45.28	45.66
<b>Total CSR</b>	1991	292.06	303.39	301.06
	1992	297.87	303.08	304.64
	1993	294.94	303.85	305.66
	1994	297.40	301.63	304.63
	1994	292.79	302.12	306.97
	1996	295.72	302.86	303.92
	1997	297.59	303.98	307.08
	1998	291.29	300.53	305.42
	1999	290.15	298.88	310.94
	2000	294.62	294.93	306.98
	2001	288.57	290.02	300.78
	2002	289.15	289.51	300.52

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *Level of Price Volatility*, is presented in Appendix H. Within Table 42 are the main effects results for the within subjects variable of *Year*, where all variables except *Environment* and *Total CSR* had significant differences across years. The trend for the variables of *Community Relations*, *Diversity*, *Product*, and *Corporate Governance* was linear (See the Tests of Within-Subjects Contrasts tables in Appendix H). Refer to Table 43 for the results from the Sidak post analysis for specific differences across years for the other CSR variables. The years are listed in descending order of their group means for each variable, and underline notation is used to connect the years that are not significantly different.

Table 42. Summary of Within Subjects Effects for *Year* and *Level of Price Volatility* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	21210.206	1	21210.206	19.391	.000	.054	.992
	year*pvlevel	2868.730	2	1434.365	1.311	.271	.008	.283
	Error	374088.874	342	1093.827				
<b>Diversity</b>	year	48519.776	1	48519.776	52.752	.000	.134	1.000
	year*pvlevel	1402.389	2	701.194	.762	.467	.004	.179
	Error	314559.121	342	919.764				
<b>Employee Relations</b>	year	10946.004	1	10946.004	9.224	.003	.026	.857
	year*pvlevel	2984.382	2	1492.191	1.257	.286	.007	.273
	Error	405849.573	342	1186.695				
<b>Environment</b>	year	2115.411	1	2115.411	2.310	.129	.007	.329
	year*pvlevel	990.410	2	495.205	.541	.583	.003	.139
	Error	313183.791	342	915.742				
<b>Product</b>	year	11183.739	1	11183.739	11.790	.001	.033	.928
	year*pvlevel	3445.133	2	1722.566	1.816	.164	.011	.378
	Error	324402.428	342	948.545				
<b>Corporate Governance</b>	year	41651.042	1	41651.042	28.691	.000	.077	1.000
	year*pvlevel	2278.664	2	1139.332	.785	.457	.005	.184
	Error	496489.975	342	1451.725				
<b>Total CSR<sup>a</sup></b>	year	34092.255	1	34092.255	5.169	.024	.015	.621
	year*pvlevel	21731.026	2	10865.513	1.648	.194	.010	.347
	Error	2255530.542	342	6595.119				

Note: pvlevel = Level of Price Volatility.

<sup>a</sup> The significant difference for year was not interpreted due to no medium effect size or high power.

Table 43. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of Price Volatility* Analysis

CSR Var	Year											
<b>Com</b>	1993	1992	1994	1995	1991	1997	1996	1998	1999	2000	2002	2001
<b>Div</b>	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	1995	2001	1997	2002	1994	1996	1993	1992	1991
<b>Pro</b>	1992	1993	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002

Table 43 Continued

CSR Var	Year											
Cgov	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Pro = Product, Cgov = Corporate Governance.

In Table 43, no significant differences are shown using the Sidak post hoc analysis for the variable of *Employee Relations*, although a significant difference and high power were present in the within subjects analysis. The low strength of association (.026) for this variable, along with the conservative nature of Sidak, could be reasons for the lack of differences found. Differences among years were found for the other four variables in the table, and commonly for these variables, organizations' scores in earlier years generally outperformed those in later years. Specifically for *Community Relations*, the two years with highest scores of 1993 and 1992 significantly differed from the year with the lowest scores of 2001. For *Product*, the three years with the highest scores of 1992, 1993, and 1991 significantly differed from the year of 2002 with the lowest scores. And, for *Corporate Governance*, the two years of 1991 and 1992 with the top scores were different from the years of 2002, 2001, 2000, and 1998 with the lowest scores, while 1995 was also shown to be different from both ends. In terms of *Diversity*, organizations in later years consecutively outperformed those in earlier years. More specifically, the three years of 1991, 1992, and 1993 with the lowest scores were significantly different than the year of 2002 with the highest scores.

The main effects results of differences between groups of *Level of Price Volatility* are listed in Table 44. The criteria for interpreting significant differences were not met in the

cases where significant differences were found; thus, no Sidak post hoc analysis was conducted.

Table 44. Summary of Between Groups Main Effects Analysis for *Level of Price Volatility*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	pvlevel	9702.252	2	4851.126	2.316	.100	.013	.469
	Error	716310.776	342	2094.476				
<b>Diversity</b>	pvlevel	3611.860	2	1805.930	.844	.431	.005	.194
	Error	732153.488	342	2140.800				
<b>Employee Relations</b>	pvlevel	4464.356	2	2232.178	1.088	.338	.006	.241
	Error	701841.440	342	2052.168				
<b>Environment<sup>a</sup></b>	pvlevel	20586.497	2	10293.248	4.199	.016	.024	.736
	Error	838449.036	342	2451.605				
<b>Product<sup>b</sup></b>	pvlevel	19213.747	2	9606.873	4.114	.017	.023	.726
	Error	798695.284	342	2335.366				
<b>Corporate Governance</b>	pvlevel	5.292	2	2.646	.002	.998	.000	.050
	Error	590392.371	342	1726.293				
<b>Total CSR</b>	pvlevel	66848.738	2	33424.369	1.766	.173	.010	.369
	Error	6474608.906	342	18931.605				

Note: pvlevel = Level of Price Volatility.

<sup>a, b</sup> The significant difference between groups was not interpreted due to the lack of a medium effect size or high power.

**CSR Analyses for *Level of Working Capital*.** The variable of *Level of Working Capital* was utilized in this set of analyses of the dependent CSR variables. There were three levels (Low, Medium, High) assigned to *Level of Working Capital*. The means for the seven CSR variables for this classification variable, listed by Year, are presented in Table 45.

Table 45. Summary of Means for CSR Variables for *Level of Working Capital* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	51.46	48.82	49.90
	1992	54.76	49.98	50.56
	1993	54.63	50.85	51.88
	1994	50.16	49.37	51.55
	1995	51.48	49.26	51.22
	1996	52.24	48.00	47.60
	1997	51.68	48.07	47.27
	1998	47.95	46.17	46.94

Table 45 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	1999	47.12	45.15	46.73
	2000	46.45	44.77	46.40
	2001	45.72	44.52	45.74
	2002	47.17	44.78	45.41
<b>Diversity</b>	1991	46.12	42.82	44.21
	1992	47.01	43.56	44.61
	1993	47.57	43.90	46.16
	1994	50.29	46.55	47.35
	1995	52.90	47.46	47.35
	1996	53.12	48.20	47.95
	1997	55.66	49.72	48.54
	1998	55.80	51.16	48.28
	1999	55.39	52.84	49.12
	2000	56.48	53.18	50.89
	2001	58.28	53.41	50.48
	2002	56.79	53.66	51.20
<b>Employee Relations</b>	1991	43.37	45.12	49.12
	1992	45.80	47.71	50.20
	1993	46.98	49.17	49.32
	1994	49.71	50.34	50.10
	1995	49.02	51.61	52.05
	1996	48.24	50.20	51.17
	1997	51.17	50.60	50.88
	1998	50.49	51.59	52.26
	1999	49.90	51.29	52.55
	2000	51.46	51.87	52.45
	2001	51.07	50.06	51.57
	2002	50.88	48.94	50.80
<b>Environment</b>	1991	51.74	48.59	54.12
	1992	51.41	46.18	53.91
	1993	50.39	45.81	53.71
	1994	49.74	45.95	52.98
	1995	50.24	46.87	53.39
	1996	52.21	48.51	53.50
	1997	52.30	48.86	54.73
	1998	50.67	49.13	54.72
	1999	49.87	48.73	54.00
	2000	50.17	48.13	54.73
	2001	48.39	46.21	54.94
	2002	48.00	49.75	54.43
<b>Product</b>	1991	48.20	52.01	55.44
	1992	48.43	52.31	56.16
	1993	48.78	52.31	56.51
	1994	48.29	50.68	55.59
	1995	49.23	48.80	56.63
	1996	49.59	48.28	54.28
	1997	47.96	47.87	54.76
	1998	46.45	47.29	55.80
	1999	45.52	47.59	55.45
	2000	45.63	46.87	55.45

Table 45 Continued

CSR Variable	Year	Low	Medium	High
	2001	44.00	45.42	54.40
	2002	42.84	44.60	52.67
<b>Corporate Governance</b>	1991	55.41	57.40	55.41
	1992	53.83	56.45	56.52
	1993	51.13	53.59	56.52
	1994	50.50	51.29	54.46
	1995	48.12	48.60	53.67
	1996	50.34	50.02	54.30
	1997	48.12	49.87	54.78
	1998	46.54	46.46	52.24
	1999	47.80	46.06	56.21
	2000	44.63	46.22	51.93
	2001	43.21	45.03	51.13
	2002	42.89	44.08	50.02
<b>Total CSR</b>	1991	296.13	294.62	308.05
	1992	301.07	296.05	311.80
	1993	299.35	295.52	313.98
	1994	298.73	294.15	311.95
	1994	301.00	292.59	314.32
	1996	305.85	293.18	308.85
	1997	307.06	294.98	311.04
	1998	297.98	291.78	310.32
	1999	295.62	291.63	314.10
	2000	294.90	291.05	311.94
	2001	290.74	284.66	308.32
	2002	288.56	285.78	304.55

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *Level of Working Capital*, is presented in Appendix I. The main effects results for the within subjects variable of *Year* are housed within Table 46. Significant differences across years were found for all of the CSR variables except *Environment* and *Total CSR*. A linear trend was present for the variables of *Community Relations*, *Diversity*, *Product*, and *Corporate Governance* (See the Tests of Within-Subjects Contrasts tables in Appendix I). In Table 47 are the results from the Sidak post analysis for specific differences across years, where the twelve years are listed per CSR variable in descending order of their group means.

Table 46. Summary of Within Subjects Effects for *Year* and *Level of Working Capital* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	20238.781	1	20238.781	20.065	.000	.058	.994
	year*wclevel	1940.719	2	970.360	.962	.383	.006	.217
	Error	327820.434	325	1008.678				
<b>Diversity</b>	year	38945.773	1	38945.773	43.356	.000	.118	1.000
	year*wclevel	3399.157	2	1699.578	1.892	.152	.012	.392
	Error	291939.039	325	898.274				
<b>Employee Relations</b>	year	9901.299	1	9901.299	8.225	.004	.025	.816
	year*wclevel	2298.198	2	1149.099	.955	.386	.006	.215
	Error	391236.131	325	1203.803				
<b>Environment</b>	year	1874.165	1	1874.165	1.905	.168	.006	.280
	year*wclevel	2845.260	2	1422.630	1.446	.237	.009	.309
	Error	319773.121	325	983.917				
<b>Product</b>	year	10324.874	1	10324.874	10.975	.001	.033	.910
	year*wclevel	3762.120	2	1881.060	2.000	.137	.012	.412
	Error	305740.396	325	940.740				
<b>Corporate Governance</b>	year	36581.836	1	36581.836	24.992	.000	.071	.999
	year*wclevel	6390.914	2	3195.457	2.183	.114	.013	.445
	Error	475720.917	325	1463.757				
<b>Total CSR<sup>a</sup></b>	year	38806.231	1	38806.231	5.786	.017	.017	.669
	year*wclevel	15295.697	2	7647.849	1.140	.321	.007	.250
	Error	2179861.459	325	6707.266				

Note: wclevel = Level of Working Capital.

<sup>a</sup> The significant difference of year was not interpreted because of a lack of a medium effect size or high power.

Table 47. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of Working Capital* Analysis

CSR Var	Year											
<b>Com</b>	1993	1992	1995	1994	1991	1996	1997	1998	1999	2000	2002	2001
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	2001	1995	1997	2002	1994	1996	1993	1992	1991
<b>Pro</b>	1993	1992	1991	1995	1994	1996	1997	1998	1999	2000	2001	2002



Table 47 Continued

CSR Var	Year											
Cgov	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002

Note: Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Pro = Product, Cgov = Corporate Governance.

Similar to the previous analyses for *Level of Price Volatility*, no significant differences among years were found in the Sidak post hoc analysis for the variable of *Employee Relations* for the analyses for *Level of Working Capital*, as portrayed in Table 47. Although a significant difference and high power were found for this variable in the within subjects analysis, the low strength of association (.025) for this variable and the conservative nature of Sidak could have contributed to the lack of differences found in the post hoc analysis. Specifically for *Community Relations*, the three years of 1993, 1992, and 1995 with top performances were different than the three years of 2001, 2002, and 2000 with the lowest scores. For Product, the two years on opposite ends - 1993 for the high and 2002 for the low were the only that significantly differed. More differences existed for *Corporate Governance*, but mostly between the two years of 2002 and 2001 with the low scores, and the three years of 1991, 1992, and 1993 with the high scores. In terms of *Diversity*, the differences seemed to lie mostly between the four years with the lowest scores and the remaining years with higher scores, although differences were also found between the years at each end of the spectrum.

The main effects results of differences between groups of *Level of Working Capital* are contained in Table 48, in which significant differences between groups are listed for the

CSR variables of *Environment, Product, Corporate Governance, and Total CSR*. The results from the Sidak post hoc analysis for these four variables can be reviewed in Table 49.

Table 48. Summary of Between Groups Main Effects Analysis for *Level of Working Capital*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	wclevel	4413.574	2	2206.787	1.310	.271	.008	.283
	Error	547449.145	325	1684.459				
<b>Diversity<sup>a</sup></b>	wclevel	14561.563	2	7280.782	3.484	.032	.021	.649
	Error	679270.364	325	2090.063				
<b>Employee Relations</b>	wclevel	2050.269	2	1025.134	.478	.620	.003	.128
	Error	696517.217	325	2143.130				
<b>Environment</b>	wclevel	26874.188	2	13437.094	5.185	.006	.031	.826
	Error	842328.428	325	2591.780				
<b>Product</b>	wclevel	39110.831	2	19555.416	8.658	.000	.051	.968
	Error	734048.799	325	2258.612				
<b>Corporate Governance</b>	wclevel	16978.489	2	8489.244	5.114	.007	.031	.821
	Error	539509.486	325	1660.029				
<b>Total CSR</b>	wclevel	227048.065	2	113524.033	6.089	.003	.036	.885
	Error	6059552.870	325	18644.778				

Note: wclevel = Level of Working Capital.

<sup>a</sup> The significance difference between groups for the variable of *Diversity* was not interpreted because of the lack of also a medium effect size or high power.

Table 49. Summary of Sidak Post Hoc Analysis for Main Effect of *Level of Working Capital*

CSR Variable	Level of Working Capital		
<b>Environment</b>	High	Low	Medium
<b>Product</b>	High	Medium	Low
<b>Corporate Governance</b>	High	Medium	Low
<b>Total CSR</b>	High	Low	Medium

Presented in Table 49 are the three levels of *Level of Working Capital*, listed in descending order of their group means for each CSR variable. The patterns of significant differences between levels were similar for the variables *Product* and *Corporate Governance*, and another pattern was found for *Environment* and *Total CSR*. In terms of *Product* and *Corporate Governance*, organizations in the High level produced the best scores and significantly differed from organizations in both the Medium and Low levels, respectively. Again for *Environment* and *Total CSR*, organizations in the High level received the highest scores, but organizations in the Low level represented the middle range of scores, leaving the Medium level lowest and significantly different from the High level.

**CSR Analyses for *Level of Return on Assets (ROA)*.** *Level of Return on Assets (ROA)* was the independent variable used for this set of analyses of the CSR variables. Similar to the other financial variables employed as independent variables for the analyses of CSR, *Level of ROA* was divided into three levels (Low, Medium, High). The means for the seven CSR variables for this classification variable, listed by Year, are presented in Table 50.

Table 50. Summary of Means for CSR Variables for *Level of ROA* from 1991-2002

CSR Variable	Year	Low	Medium	High
Community Relations	1991	52.78	49.65	51.22
	1992	52.77	51.52	51.88
	1993	54.30	52.39	52.87
	1994	50.38	50.63	51.34
	1995	50.38	50.24	52.00
	1996	50.48	48.99	50.02
	1997	50.72	48.49	50.68
	1998	49.55	46.46	49.24
	1999	48.79	45.40	49.57
	2000	46.60	44.80	49.24
Diversity	2001	45.96	44.60	48.05
	2002	45.76	45.31	48.05
	1991	44.61	43.04	46.24
	1992	45.56	44.16	46.05
	1993	46.40	44.80	46.68
	1994	48.90	46.99	49.89
	1995	50.93	47.21	51.04

Table 50 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	1996	51.83	48.10	51.52
	1997	52.01	50.38	51.45
	1998	53.10	51.35	51.96
	1999	53.65	52.00	54.10
	2000	53.89	52.46	55.90
	2001	53.95	52.70	57.10
	2002	52.98	52.66	57.27
<b>Employee Relations</b>	1991	44.15	45.61	46.68
	1992	46.00	47.76	49.22
	1993	48.44	47.85	50.00
	1994	50.10	48.44	51.76
	1995	50.10	49.90	52.93
	1996	51.96	48.00	51.46
	1997	53.54	48.64	52.24
	1998	53.55	49.77	52.73
	1999	53.83	49.48	51.76
	2000	54.32	49.71	53.12
	2001	52.35	48.89	52.24
	2002	51.57	48.46	51.46
<b>Environment</b>	1991	48.48	51.11	52.37
	1992	48.46	48.75	51.02
	1993	47.33	48.29	51.12
	1994	47.10	48.02	51.30
	1995	47.40	49.03	52.44
	1996	47.91	51.45	52.24
	1997	49.05	51.64	52.76
	1998	49.37	50.47	53.17
	1999	48.66	50.01	52.96
	2000	48.48	50.59	52.46
	2001	47.52	48.98	51.84
	2002	48.56	50.26	54.21
<b>Product</b>	1991	51.60	52.29	53.24
	1992	50.79	53.52	52.56
	1993	51.61	52.59	53.61
	1994	51.72	51.12	52.09
	1995	49.87	51.54	51.35
	1996	49.51	51.07	49.71
	1997	48.59	50.32	49.95
	1998	48.35	50.09	49.49
	1999	47.07	50.38	48.44
	2000	47.30	49.79	48.54
	2001	44.51	48.69	47.01
	2002	43.82	47.48	45.84
<b>Corporate Governance</b>	1991	55.41	56.29	57.32
	1992	53.51	56.45	56.37
	1993	52.09	54.54	53.83
	1994	49.55	53.35	50.98
	1995	47.01	51.37	48.91
	1996	47.49	53.04	51.13
	1997	47.96	51.29	52.09

Table 50 Continued

CSR Variable	Year	Low	Medium	High
	1998	45.90	48.36	49.55
	1999	46.85	49.95	48.76
	2000	45.74	48.84	47.17
	2001	44.63	47.96	45.11
	2002	44.00	47.17	44.79
Total CSR	1991	296.88	297.82	306.93
	1992	296.96	302.02	306.89
	1993	300.10	300.35	307.90
	1994	297.77	298.49	307.28
	1994	295.68	299.29	308.67
	1996	299.21	300.65	306.18
	1997	301.84	300.84	309.24
	1998	299.78	296.51	306.24
	1999	298.78	297.23	305.65
	2000	296.29	296.23	306.57
	2001	288.87	291.85	301.44
	2002	286.56	291.32	301.65

A mixed model ANOVA, including complete probing for post hoc follow-ups, for the independent variable, *Level of ROA*, is presented in Appendix J. Summary tables of the within subjects and between subjects main effects analyses are presented in Tables 51 and 53, and the summary table of the post hoc analyses for the within subjects factor is in Table 52.

In Table 51, significant differences across years are displayed for the variables of *Community Relations*, *Diversity*, *Employee Relations*, *Product*, and *Corporate Governance*. The trend for the latter five variables was linear (See the Tests of Within-Subjects Contrasts tables in Appendix J). In Table 52, underline notation is used to depict the years that are not significantly different from each other, and the twelve years in the table are listed in descending order of their group means by the CSR variables.

Table 51. Summary of Within Subjects Effects for *Year* and *Level of ROA* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
Community Relations	year	17142.174	1	17142.174	15.946	.000	.047	.978
	year*ROAlevel	1997.545	2	998.773	.929	.396	.006	.210
	Error	349384.521	325	1075.029				

Table 51 Continued

<b>CSR Variable</b>	<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>	<b>h<sub>p</sub><sup>2</sup></b>	<b>Power</b>
<b>Diversity</b>	year	41709.413	1	41709.413	47.133	.000	.127	1.000
	year*ROAlevel	1716.243	2	858.122	.970	.380	.006	.218
	Error	287599.780	325	884.922				
<b>Employee Relations</b>	year	13111.264	1	13111.264	11.092	.001	.033	.913
	year*ROAlevel	3566.995	2	1783.497	1.509	.223	.009	.321
	Error	384153.387	325	1182.010				
<b>Environment</b>	year	2299.122	1	2299.122	2.424	.120	.007	.342
	year*ROAlevel	932.334	2	466.167	.491	.612	.003	.130
	Error	308285.996	325	948.572				
<b>Product</b>	year	16140.391	1	16140.391	16.920	.000	.049	.984
	year*ROAlevel	1442.911	2	721.455	.756	.470	.005	.178
	Error	310028.739	325	953.935				
<b>Corporate Governance</b>	year	40565.547	1	40565.547	27.873	.000	.079	1.000
	year*ROAlevel	1845.346	2	922.673	.634	.531	.004	.156
	Error	472995.191	325	1455.370				
<b>Total CSR<sup>a</sup></b>	year	34631.162	1	34631.162	5.189	.023	.016	.622
	year*ROAlevel	6034.726	2	3017.363	.452	.637	.003	.123
	Error	2169028.453	325	6673.934				

Note: ROAlevel = Level of Return on Assets.

<sup>a</sup>The significant difference of year was not interpreted because of the lack of a medium partial eta squared or high power.

Table 52. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of ROA* Analysis

<b>CSR</b>	<b>Year</b>											
<b>Com</b>	1993	1992	1991	1995	1994	1997	1996	1998	1999	2000	2002	2001
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	1997	2001	1995	2002	1996	1994	1993	1992	1991
<b>Pro</b>	1993	1991	1992	1994	1995	1996	1997	1998	1999	2000	2001	2002

Table 52 Continued

CSR	Year											
Cgov	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002

Note: Var = Variable Com = Community Relations, Div = Diversity, Emp = Employee Relations, Pro = Product, Cgov = Corporate Governance.

In Table 52, the year of 1993 with the highest scores significantly differed from the two years of 2001 and 2002 with the lowest scores for *Community Relations*; while 2002 with the lowest scores differed from the first half of years with the highest scores for *Product*. For *Employee Relations*, the year of 1991 with the lowest scores differed from three out of the four years with highest scores. For *Diversity*, the three years of 1991, 1992, and 1993 with the lowest scores differed from the other years with higher scores. For *Corporate Governance*, the differences were mostly found between the later and earlier years.

Within Table 53 are the main effects results of differences between groups of *Level of ROA*, where one can note that no significant differences between groups were found for any of the seven CSR variables. No Sidak post hoc analysis was performed due to the non-significant differences between groups.

Table 53. Summary of Between Groups Main Effects Analysis for *Level of ROA*

CSR Variable	Source	SS	df	MS	F	p	h <sub>p</sub> <sup>2</sup>	Power
<b>Community Relations</b>	ROAlevel	3674.561	2	1837.281	.915	.402	.006	.208
	Error	652804.412	325	2008.629				
<b>Diversity</b>	ROAlevel	5671.683	2	2835.842	1.308	.272	.008	.282
	Error	704526.629	325	2167.774				
<b>Employee Relations</b>	ROAlevel	6359.179	2	3179.590	1.506	.223	.009	.320
	Error	685988.973	325	2110.735				
<b>Environment</b>	ROAlevel	8540.090	2	4270.045	1.651	.193	.010	.347
	Error	840519.217	325	2586.213				
<b>Product</b>	ROAlevel	2653.306	2	1326.653	.557	.573	.003	.142
	Error	773676.810	325	2380.544				

Table 53 Continued

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Corporate Governance</b>	ROAlevel	6733.465	2	3366.732	2.017	.135	.012	.415
	Error	542487.681	325	1669.193				
<b>Total CSR</b>	ROAlevel	59204.750	2	29602.375	1.514	.221	.009	.322
	Error	6352576.925	325	19546.391				

Note: ROA level = Level of Return on Assets.

### CSR Analyses with Criteria-based Significant Interaction Effects

**CSR Analyses for *Level of Closely Held Shares*.** The independent variable of *Level of Closely Held Shares*, or the amount of stock shares that were owned by corporate officers and directors, was utilized in this set of analyses. The variable was reported as a percentage to the total amount of outstanding shares, and was categorized in terms of Low, Medium, or High for the analysis. The means for the seven CSR variables for the three levels of *Level of Closely Held Shares*, listed by year, are presented in Table 54.

Table 54. Summary of Means for CSR Variables for *Level of Closely Held Shares* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	56.44	50.41	47.22
	1992	59.19	50.77	48.75
	1993	59.72	52.49	48.75
	1994	55.61	50.92	48.56
	1995	56.22	50.01	49.17
	1996	53.88	49.45	47.33
	1997	53.48	50.16	46.83
	1998	51.16	47.67	47.14
	1999	49.17	47.27	47.25
	2000	47.32	46.41	46.44
	2001	46.86	45.64	45.64
	2002	48.10	46.76	45.64
<b>Diversity</b>	1991	46.89	43.09	43.16
	1992	47.72	43.97	43.72
	1993	49.43	44.67	43.91
	1994	53.77	46.60	46.14
	1995	54.75	47.39	47.63
	1996	54.24	48.52	48.83
	1997	56.05	50.01	49.32
	1998	57.03	50.45	50.69
	1999	58.16	51.38	51.41
	2000	61.58	51.45	50.89



Table 54 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	2001	63.36	51.22	51.68
	2002	61.49	51.90	51.41
<b>Employee Relations</b>	1991	45.55	45.80	45.64
	1992	47.82	47.69	47.91
	1993	48.45	48.69	48.27
	1994	51.27	49.28	49.82
	1995	50.64	51.40	50.09
	1996	50.00	49.73	50.36
	1997	51.09	50.65	51.18
	1998	52.00	51.84	50.91
	1999	52.09	51.56	50.27
	2000	52.82	52.01	50.45
	2001	53.27	50.42	48.64
	2002	52.00	50.25	47.55
<b>Environment</b>	1991	49.64	50.52	52.72
	1992	48.49	49.47	50.99
	1993	46.47	48.90	52.14
	1994	45.38	49.41	51.17
	1995	46.03	49.79	52.32
	1996	50.83	49.98	52.13
	1997	51.32	50.16	53.17
	1998	51.03	49.89	52.98
	1999	49.60	49.75	52.50
	2000	49.81	49.81	52.23
	2001	46.63	49.12	51.75
	2002	49.01	50.56	52.23
<b>Product</b>	1991	48.56	53.05	53.886
	1992	47.91	53.93	53.557
	1993	48.25	53.71	53.773
	1994	45.74	52.51	54.102
	1995	46.05	51.01	55.193
	1996	46.26	49.98	54.307
	1997	45.94	49.18	54.966
	1998	44.86	48.96	55.182
	1999	44.76	48.31	54.966
	2000	43.98	47.93	55.295
	2001	41.81	46.37	53.886
	2002	40.50	45.67	52.159
<b>Corporate Governance</b>	1991	56.41	56.05	57.00
	1992	54.78	54.87	57.59
	1993	50.06	52.89	58.03
	1994	48.88	50.76	56.70
	1995	45.03	48.92	55.08
	1996	47.40	48.26	59.95
	1997	46.07	48.63	57.74
	1998	42.97	45.98	55.52
	1999	41.49	47.45	57.89
	2000	40.16	46.86	54.64
	2001	38.98	45.98	52.72
	2002	37.80	45.40	52.27

Table 54 Continued

CSR Variable	Year	Low	Medium	High
Total CSR	1991	303.27	298.75	299.45
	1992	305.70	300.53	302.43
	1993	302.23	301.19	304.80
	1994	300.67	299.41	306.44
	1994	298.72	298.51	309.48
	1996	302.76	295.83	313.00
	1997	304.11	298.72	313.32
	1998	299.19	294.69	312.51
	1999	295.38	295.64	314.31
	2000	295.81	294.45	310.01
	2001	291.06	289.21	304.39
	2002	288.98	290.45	301.27

The mixed model ANOVAs, including complete probing for post hoc follow-ups for the analyses with *Level of Closely Held Shares* can be found in Appendix K. The criteria for the significant interaction effects were unmet in the cases of all the CSR variables, with the exception of *Corporate Governance* (Table 55), for the analyses with *Level of Closely Held Shares* as the IV. Thus, the main effects analysis for the within subjects factor, *Year*, is presented for the six out of seven CSR variables that did not have significant interaction effects, in Table 56.

Table 55. Summary of Within Subjects Effects for *Year* and *Level of Closely Held Shares* Using Lower Bound Estimates for *Corporate Governance*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
Corporate Governance	year	46644.008	1	46644.008	32.479	.000	.085	1.000
	year*chslevel	13984.468	2	6992.234	4.869	.008	.027	.801
	Error	502644.942	350	1436.128				

Note: chslevel = Level of Closely Held Shares.

Table 56. Summary of Within Subjects Effects for *Year* and *Level of Closely Held Shares* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
Community Relations	year	22445.215	1	22445.215	20.427	.000	.055	.995
	year*chslevel	7088.111	2	3544.056	3.225	.041	.018	.613
	Error	384582.986	3	1098.809				
Diversity	year	52915.387	1	52915.387	58.064	.000	.142	1.000
	year*chslevel	4793.505	2	2396.753	2.630	.074	.015	.522
	Error	318962.392	350	911.321				



Table 57 Continued

CSR Var	Year											
	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Div</b>												
<b>Emp</b>	2000	1998	1999	1997	2001	1995	1994	1996	2002	1993	1992	1991
<b>Pro</b>	1993	1991	1992	1994	1995	1996	1997	1998	1999	2000	2001	2002

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Pro = Product.

In Table 57, no significant differences for the variable of *Employee Relations* were revealed using the Sidak post hoc analysis, although a significant difference and high power were present in the within subjects analysis for this variable. A low strength of association (.026) for this variable and the conservative nature of Sidak likely could have attributed to the lack of differences found in the post hoc analysis. For *Community Relations* and *Product* organizations' scores in earlier years typically outperformed those in later years. More specifically for *Community Relations*, the three years of 2001, 2000, and 2002 with the lowest scores significantly differed from the two years of 1993 and 1992 with the highest scores; while for *Product*, the three years of 1993, 1991, and 1992 with the highest scores differed from the year of 2002 with the lowest score. The differences for *Diversity* were mostly between the years of 1991, 1992, and 1993 with the lowest scores from the remaining years with higher scores, although the year of 2001 with the highest score was shown to be significantly different from the years with the lowest scores as well.

A summary of the main effects analysis for the between subjects factor, *Level of Closely Held Shares*, for those variables with non-significant interaction effects, is included

in Table 58. Between groups significance was found for the CSR variables, *Diversity*, and *Product*. Sidak post hoc analyses were then conducted on the latter two variables, and the results for the follow-up analysis are displayed in Table 59. The groups of *Level of Closely Held Shares* are listed in Table 59 in descending order of their group means for the CSR variables.

Table 58. Summary of Between Groups Main Effects Analysis for *Level of Closely Held Shares*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations<sup>a</sup></b>	chslevel	18715.879	2	9357.940	4.285	.015	.024	.745
	Error	764414.944	350	2184.043				
<b>Diversity</b>	chslevel	39272.846	2	19636.423	9.550	.000	.052	.980
	Error	719672.327	350	2056.207				
<b>Employee Relations</b>	chslevel	928.616	2	464.308	.222	.801	.001	.085
	Error	732774.022	350	2093.640				
<b>Environment</b>	chslevel	6953.443	2	3476.721	1.408	.246	.008	.302
	Error	864103.871	350	2468.868				
<b>Product</b>	chslevel	41764.680	2	20882.340	9.303	.000	.050	.977
	Error	785630.886	350	2244.660				
<b>Total CSR</b>	chslevel	89071.478	2	44535.739	2.307	.101	.013	.467
	Error	6756862.378	350	19305.321				

Note: chslevel = Level of Closely Held Shares.

<sup>a</sup> The significant difference between groups was not interpreted because neither a medium effect size or high power was also present.

Table 59. Summary of Sidak Post Hoc Analysis for Main Effect of *Level of Closely Held Shares*

CSR Variable	Level of Closely Held Shares		
<b>Diversity</b>	Low	Medium	High
<b>Product</b>	High	Medium	Low

For *Diversity*, companies with a Low level of *Closely Held Shares* outperformed those with a Medium or High level. The results were the opposite for the variable of *Product*,

in which the Low level companies performed the lowest, significantly different than the companies with a Medium or High *Level of Closely Held Shares*.

For the mixed model ANOVA with *Level of Closely Held Shares* as the IV, the only CSR variable that resulted in having the established criteria met was *Corporate Governance*. Due to the significant interaction, the level of analysis was carried to simple main effects, and the profiles for each level of the factors across all the levels of the other factor (*Year* and *Closely Held Shares*), as well as post hoc follow ups where appropriate, are presented in Tables 60-63.

In Table 60 are the summaries of the analyses for the three profiles of the simple main effects for the within subjects factor, *Year*, for the mixed model ANOVA that incorporated three groups of *Level of Closely Held Shares* as the IV and *Corporate Governance* as the DV.

Table 60. Summary of Simple Main Effects Analysis of *Year* at *Level of Closely Held Shares* for *Corporate Governance*

CSR Variable	Level of Closely Held Shares	F	df	Error df	p	$h_p^2$	Power
<b>Corporate Governance</b>	<b>Low</b>	9.886	11	340	.000	.242	1.000
	<b>Medium</b>	6.809	11	340	.000	.181	1.000
	<b>High</b>	2.659	11	340	.003	.079	.973

In Table 60, a significant difference for the within subjects factor of *Year* can be seen for all three levels of *Level of Closely Held Shares*. The trend for the Low and Medium levels was linear (See the Tests of Within-Subjects Contrasts tables in Appendix K). A Sidak post hoc follow-up was included in this analysis, and the specific differences between years for each group of *Level of Closely Held Shares* can be seen in Table 61, where the underline notation is used to represent the levels of factors that were not significantly different from

one another. No significant differences across years were detected by the post hoc analysis for the High level. Also in Table 61, the years are listed in descending order of their means relative to the level of *Level of Closely Held Shares*.

Table 61. Summary of Sidak Post Hoc Analysis for Simple Main Effect of *Year* at *Level of Closely Held Shares* for *Corporate Governance*

<b>Corporate Governance</b>												
<b>Closely Held Shares Level</b>	<b>Year</b>											
<b>Low</b>	1991	1992	1993	1994	1996	1997	1995	1998	1999	2000	2001	2002
<b>Med</b>	1991	1992	1993	1994	1995	1997	1996	1999	2000	1998	2001	2002
<b>High</b>	1996	1993	1999	1997	1992	1991	1994	1998	1995	2000	2001	2002

Note: Med = Medium.

As shown in Table 61, no significant differences across years were revealed by the post hoc analysis for the High level of *Level of Closely Held Shares* for the variable of *Corporate Governance*, even though this level had a significant difference and high power estimate in the simple main effects analysis. The lack of differences might be explained by Sidak being a conservative measure and the variable having a medium strength of association (.079). The patterns of differences were similar for the Low and Medium levels of *Closely Held Shares* in that organizations' scores in earlier years generally outperformed those in higher years. Specifically for the Low level, the two years of 1991 and 1992 with the highest scores were significantly different than the three years of 2002, 2001, and 2000 with the lowest scores. Similarly for the Medium level, the year of 1991 with the highest scores was

found to be significantly different than the three years of 2002, 2001, and 1998 with the lowest scores.

In Table 62, between groups significance was found in 10 of the 12 years, the two exceptions being years 1991-1992. A Sidak post hoc follow up was included in this analysis to pinpoint the differences among groups of *Level of Closely Held Shares* within each level of Year (Table 63). The three levels of *Level of Closely Held Shares* are listed in Table 63 in descending order of their group means relative to the CSR variables. The underline notation is used to represent the levels of factors that were not significantly different from one another.

Table 62. Summary of Simple Main Effects Analysis of *Level of Closely Held Shares* at Year for Corporate Governance

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
Corporate Governance	1991	Bw grps	53.729	2	26.865	.715	.490	.004	.171
	1992	Bw grps	499.813	2	249.906	1.782	.170	.010	.372
	1993	Bw grps	2918.454	2	1459.227	8.522	.000	.046	.966
	1994	Bw grps	3061.917	2	1530.958	6.332	.002	.035	.898
	1995	Bw grps	4553.959	2	2276.980	8.714	.000	.047	.969
	1996	Bw grps	9526.502	2	4763.251	18.287	.000	.095	1.000
	1997	Bw grps	6940.053	2	3470.027	11.352	.000	.061	.993
	1998	Bw grps	7876.250	2	3938.125	11.749	.000	.063	.994
	1999	Bw grps	12271.991	2	6135.996	19.986	.000	.103	1.000
	2000	Bw grps	9247.124	2	4623.562	14.827	.000	.078	.999
	2001	Bw grps	8306.649	2	4153.324	13.542	.000	.072	.998
	2002	Bw grps	9233.548	2	4616.774	15.051	.000	.079	.999

Note: Bw grps = Between groups.

Table 63. Summary of Sidak Post Hoc Analysis of Simple Main Effect of *Level of Closely Held Shares* at Year for Corporate Governance

CSR Variable	Year	Level of Closely Held Shares		
Corporate Governance	1993	High	Medium	Low
	1994	High	Medium	Low
	1995	High	Medium	Low



Table 63 Continued

CSR Variable	Year	Level of Closely Held Shares	CSR Variable	Year
	1996	High	Medium	Low
	1997	High	Medium	Low
	1998	High	Medium	Low
	1999	High	Medium	Low
	2000	High	Medium	Low
	2001	High	Medium	Low
	2002	High	Medium	Low

As shown in Table 63, a consistent pattern may be seen for the years 1993-1998, with the companies that had a High *Level of Closely Held Shares* significantly outperforming the companies with both Medium and Low level shares, in reference to *Corporate Governance*. The other pattern revealed was a significant difference between all three groups (High, Medium, Low) of *Level of Closely Held Shares* for the years 1999-2002.

**CSR Analyses for *Level of Net Income*.** The classification variable incorporated for this set of analyses was *Level of Net Income*, or corporations' total earnings or profits. Three levels (Low, Medium, High) were used to categorize this independent variable for the analyses. The means for the seven CSR variables for the three groups of *Level of Net Income*, listed by year, are presented in Table 64.

Table 64. Summary of Means for CSR Variables for *Level of Net Income* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	46.41	49.64	58.78
	1992	46.91	50.62	61.34
	1993	46.30	52.64	61.86
	1994	46.91	50.92	57.27
	1995	47.83	50.71	56.14
	1996	45.68	49.54	55.33

Table 64 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	1997	45.38	49.66	55.94
	1998	45.30	48.12	52.09
	1999	45.20	47.48	50.80
	2000	45.30	46.76	47.75
	2001	45.60	46.23	46.76
	2002	44.99	46.43	49.42
<b>Diversity</b>	1991	42.85	42.21	48.97
	1992	42.74	43.04	50.56
	1993	43.82	43.46	51.94
	1994	44.73	45.69	57.00
	1995	45.70	46.63	58.19
	1996	47.16	46.44	60.10
	1997	47.45	48.33	61.28
	1998	48.43	49.33	61.55
	1999	50.25	49.84	62.41
	2000	51.25	50.01	64.11
	2001	50.76	50.23	66.27
	2002	50.35	50.55	65.27
<b>Employee Relations</b>	1991	46.27	45.34	45.82
	1992	48.36	47.24	48.27
	1993	48.00	48.28	49.55
	1994	49.64	49.64	50.73
	1995	49.73	51.27	51.27
	1996	48.18	50.23	51.18
	1997	49.02	51.14	52.27
	1998	49.20	52.51	52.36
	1999	50.02	52.01	51.45
	2000	50.56	52.14	52.45
	2001	48.91	51.01	51.82
	2002	48.00	50.25	51.55
<b>Environment</b>	1991	54.23	50.56	48.03
	1992	54.42	49.75	44.50
	1993	54.23	48.98	44.20
	1994	54.11	49.02	43.23
	1995	55.06	49.21	44.45
	1996	55.55	50.11	47.14
	1997	57.35	50.30	46.85
	1998	57.16	50.79	45.05
	1999	57.45	49.69	44.76
	2000	56.78	50.28	44.30
	2001	55.82	48.41	43.99
	2002	56.40	49.31	47.35
<b>Product</b>	1991	54.19	52.12	50.11
	1992	54.20	52.62	49.91
	1993	54.75	52.07	50.57
	1994	53.76	51.05	49.03
	1995	53.45	50.72	48.36
	1996	52.58	49.69	48.58
	1997	52.36	49.32	48.26
	1998	51.92	49.37	47.30

Table 64 Continued

CSR Variable	Year	Low	Medium	High
	1999	51.59	49.54	45.66
	2000	51.92	49.49	44.22
	2001	51.69	48.04	40.64
	2002	52.13	46.59	38.68
<b>Corporate Governance</b>	1991	56.41	56.27	56.56
	1992	58.63	56.19	51.09
	1993	59.22	53.99	46.66
	1994	57.00	53.11	43.85
	1995	56.11	50.83	40.16
	1996	58.18	51.27	43.11
	1997	58.48	51.05	40.45
	1998	54.49	48.99	37.94
	1999	55.52	50.54	37.65
	2000	53.60	48.48	37.94
	2001	53.31	47.08	36.17
	2002	52.57	46.50	35.28
<b>Total CSR</b>	1991	300.30	295.90	308.16
	1992	305.16	299.24	305.56
	1993	306.25	299.24	304.69
	1994	306.13	299.32	301.16
	1994	307.89	299.37	298.58
	1996	307.40	297.20	305.61
	1997	310.13	299.75	305.25
	1998	306.58	299.03	296.39
	1999	310.14	299.00	292.80
	2000	309.51	297.14	290.91
	2001	306.18	290.95	285.75
	2002	304.53	289.52	287.58

The mixed model ANOVA, including complete probing for post hoc follow-ups for the CSR Analyses with the classification variable of *Level of Net Income*, can be found in Appendix L. The criteria for the significant interaction effects were met in the two cases of *Community Relations* and *Corporate Governance*, for the analyses with *Net Income* as the IV (Table 65). Thus, a summary of the main effects analysis for the within subjects variable of *Year* for the remaining five CSR variables that did not have significant interaction effects is presented in Table 66.

Table 65. Summary of Within Subjects Effects for *Year* and *Level of Net Income* Using Lower Bound Estimates for *Community Relations* and *Corporate Governance*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	22745.344	1	22745.344	20.923	.000	.056	.995
	year*nilevel	11179.636	2	5589.818	5.142	.006	.029	.823
	Error	380491.461	350	1087.118				
<b>Corporate Governance</b>	year	48864.459	1	48864.459	34.091	.000	.089	1.000
	year*nilevel	14959.258	2	7479.629	5.218	.006	.029	.829
	Error	501670.151	350	1433.343				

Note: nilevel = Level of Net Income.

Table 66. Summary of Within Subjects Effects for *Year* and *Level of Net Income* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Diversity</b>	year	54311.937	1	54311.937	59.906	.000	.146	1.000
	year*nilevel	6439.057	2	3219.528	3.551	.030	.020	.658
	Error	317316.840	350	906.620				
<b>Employee Relations</b>	year	9891.429	1	9891.429	8.250	.004	.023	.817
	year*nilevel	1520.321	2	760.161	.634	.531	.004	.156
	Error	419648.882	350	1198.997				
<b>Environment</b>	year	2817.106	1	2817.106	3.070	.081	.009	.416
	year*nilevel	2465.379	2	1232.689	1.343	.262	.008	.289
	Error	321194.933	350	917.700				
<b>Product</b>	year	15683.160	1	15683.160	16.786	.000	.046	.983
	year*nilevel	5514.819	2	2757.410	2.951	.054	.017	.573
	Error	327000.210	350	934.286				
<b>Total CSR<sup>a</sup></b>	year	42630.220	1	42630.220	6.421	.012	.018	.715
	year*nilevel	43142.205	2	21571.103	3.249	.040	.018	.617
	Error	2323777.497	350	6639.364				

Note: nilevel = Level of Net Income.

<sup>a</sup> The significant difference for year was not interpreted because of a lack of a medium effect size or high power.

In Table 66, three of the variables had significant differences across time (*Year*) - *Diversity*, *Employee Relations*, and *Product*. The trend for *Diversity* and *Product* was linear (See the Tests of Within-Subjects Contrasts tables in Appendix L). Post hoc analyses using Sidak were performed as follow-ups to the within subjects factor of *Year* for the three aforementioned CSR variables. Refer to Table 67 for the specific changes that occurred over the years, where underline notation is used to represent the years that are not significantly

different from each other, and the years are listed in descending order of their means by CSR variable.

Table 67. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of Net Income* Analysis

CSR Var	Year											
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	1997	1995	2001	1994	2002	1996	1993	1992	1991
<b>Pro</b>	1993	1992	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002

Note: Var = Variable, Div = Diversity, Emp = Employee Relations, Pro = Product.

As commonly found in this study with other IVs, no significant differences resulted from the Sidak post hoc analysis of the variable *Employee Relations*, as revealed in Table 67. This result occurred even though a significant difference and high power estimate were present in the within subjects analysis; although the low strength of association (.023) and the conservative nature of Sidak could explain why no differences were found. For the variable of *Diversity*, organizations in later years outperformed those in earlier years in most cases. The differences across years were mostly between the three years of 1991, 1992, and 1993 with the lowest scores and the other years with higher scores, although differences also existed between the three years with the highest and lowest scores. For *Product*, the year of 2002 with the lowest organizational scores significantly differed from the first eight of the years with the highest scores.

A summary of the main effects analysis for the between subjects factor, *Level of Net Income*, for those CSR variables with non-significant interaction effects, is included in Table

68. One can note significant differences between groups for the CSR variables of *Diversity* and *Environment*. A Sidak post hoc analysis was conducted on the variables of *Diversity* and *Environment*, and the summary of the differences between levels for these variables is contained in Table 69. In this table, the groups of *Level of Net Income* are presented in descending order of their group means relative to the CSR variables.

Table 68. Summary of Between Groups Main Effects Analysis for *Level of Net Income*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Diversity</b>	nilevel	110975.567	2	55487.784	29.972	.000	.146	1.000
	Error	647969.606	350	1851.342				
<b>Employee Relations</b>	nilevel	2013.799	2	1006.899	.482	.618	.003	.129
	Error	731688.840	350	2090.540				
<b>Environment</b>	nilevel	57725.493	2	28862.746	12.420	.000	.066	.996
	Error	813331.821	350	2323.805				
<b>Product<sup>a</sup></b>	nilevel	19720.157	2	9860.079	4.273	.015	.024	.744
	Error	807675.409	350	2307.644				
<b>Total CSR</b>	nilevel	66721.354	2	33360.677	1.722	.180	.010	.361
	Error	6779212.501	350	19369.179				

Note: nilevel = Level of Net Income.

<sup>a</sup> The significant difference between groups was not interpreted due to a lack of a medium effect size or high power.

Table 69. Summary of Sidak Post Hoc Analysis for Main Effect of *Level of Net Income*

CSR Variable	Level of Net Income		
<b>Diversity</b>	High	Medium	Low
<b>Environment</b>	Low	Medium	High

The pattern for *Diversity* differs from the other variable featured in Table 69, in that the order of performance for the levels of *Level of Net Income* range from organizations in High to Low (descending order) for *Diversity*, whereas the reverse is true for the order for *Environment*. More specifically, organizations in the High *Level of Net Income* significantly outperformed those in the Medium and Low levels, respectively, for *Diversity*.

For the analyses with *Level of Net Income* as the IV, the two CSR variables resulting in the criteria-based significant interaction were *Community Relations* and *Corporate Governance*. The profiles for each level of both factors of *Year* and *Level of Net Income*, as well as the post hoc follow-ups for these, are presented in summary tables of simple main effects, Tables 70-73.

Table 70. Summary of Simple Main Effects Analysis of *Year* at *Level of Net Income* for *Community Relations* and *Corporate Governance*

CSR Variable	Level of Net Income	F	df	Error df	p	$h_p^2$	Power
<b>Community Relations</b>	<b>Low</b>	.506	11	340	.899	.016	.278
	<b>Medium</b>	2.641	11	340	.003	.079	.972
	<b>High</b>	7.840	11	340	.000	.202	1.000
<b>Corporate Governance</b>	<b>Low</b>	1.998	11	340	.028	.061	.903
	<b>Medium</b>	5.705	11	340	.000	.156	1.000
	<b>High</b>	14.191	11	340	.000	.315	1.000

Significant differences for the within subjects factor of *Year* for firms with Medium and High *Level of Net Income* for both *Community Relations* and *Corporate Governance*, and additionally the Low level for *Corporate Governance* are reported in Table 70. A linear trend was present for High levels for both CSR variables (See the Tests of Within-Subjects Contrasts tables in Appendix L). Table 71 is a summary of the results conducted by using a Sidak post hoc analysis of the specific differences across years for the Medium and High levels for both variables of *Community Relations* and *Corporate Governance*. In this table, the years are listed in descending order of their means per group of *Level of Net Income*, and underline notation is used to indicate those years that are not significantly different from each other.

Table 71. Summary of Sidak Post Hoc Analysis of Simple Main Effect of *Year* at *Level of Net Income* for *Community Relations* and *Corporate Governance*

<b>Community Relations</b>												
<b>Net Income Level</b>	<b>Year</b>											
<b>Med</b>	1993	1994	1995	1992	1997	1991	1996	1998	1999	2000	2002	2001
<b>High</b>	1993	1992	1991	1994	1995	1997	1996	1998	1999	2002	2000	2001
<b>Corporate Governance</b>												
<b>Net Income Level</b>	<b>Year</b>											
<b>Low</b>	1993	1992	1997	1996	1994	1991	1995	1999	1998	2000	2001	2002
<b>Med</b>	1991	1992	1993	1994	1996	1997	1995	1999	1998	2000	2001	2002
<b>High</b>	1991	1992	1993	1994	1996	1997	1995	1998	2000	1999	2001	2002

Note: Med = Medium.

As revealed in Table 71, no significant differences were found for organizations in the Medium group of *Level of Net Income* for *Community Relations*, or for those in the Low and Medium groups for *Corporate Governance*. Even though significance and high power estimates were present for these levels, medium strengths of association (.079 and .061, respectively) and the conservative nature of Sidak could have attributed to the lack of differences found for the organizations with the Medium levels for *Community Relations* and Low level for *Corporate Governance*. However, the Medium level for *Corporate Governance* had a high strength of association of .156, so the reason for lack of differences found is probably more attributable to Sidak being a conservative measure. For the High *Level of Net Income* for *Community Relations*, organizations performed significantly higher in earlier years than in later years. For the High level for *Corporate Governance*,



organizations' average scores in 1991 were the highest and significantly differed from the other years.

Table 72 is a summary of the simple main effects analysis of the between groups variable of *Level of Net Income at Year*, for the variables of *Community Relations* and *Corporate Governance*. Between groups significance was found from 1991-1997 (seven of 12 years) for *Community Relations*, and from 1992-2002 (11 of 12 years) for *Corporate Governance*. Specific differences among groups of *Level of Net Income* within each year were assessed using a Sidak post hoc analysis, and are summarized in Table 73.

Table 72. Summary of Simple Main Effects Analysis of *Level of Net Income at Year* for *Community Relations* and *Corporate Governance*

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	1991	Bw grps	7507.491	2	3753.746	14.586	.000	.077	.999
	1992	Bw grps	10250.937	2	5125.469	18.257	.000	.094	1.000
	1993	Bw grps	10847.485	2	5423.742	15.385	.000	.081	.999
	1994	Bw grps	4847.793	2	2423.897	8.194	.000	.045	.959
	1995	Bw grps	3178.724	2	1589.362	5.283	.005	.029	.834
	1996	Bw grps	4177.352	2	2088.676	8.472	.000	.046	.965
	1997	Bw grps	5003.112	2	2501.556	9.533	.000	.052	.980
	1998	Bw grps	2060.971	2	1030.486	4.055	.018	.023	.720
	1999	Bw grps	1399.206	2	699.603	2.649	.072	.015	.525
	2000	Bw grps	270.173	2	135.087	.613	.542	.003	.152
	2001	Bw grps	59.286	2	29.643	.134	.875	.001	.071
	2002	Bw grps	917.232	2	458.616	1.789	.169	.010	.374
<b>Corporate Governance</b>	1991	Bw grps	5.132	2	2.566	.068	.934	.000	.060
	1992	Bw grps	2654.628	2	1327.314	9.897	.000	.054	.984
	1993	Bw grps	7035.160	2	3517.580	22.058	.000	.112	1.000
	1994	Bw grps	8240.374	2	4120.187	18.151	.000	.094	1.000
	1995	Bw grps	11840.641	2	5920.321	24.618	.000	.123	1.000
	1996	Bw grps	10024.507	2	5012.254	19.349	.000	.100	1.000
	1997	Bw grps	14513.708	2	7256.854	25.549	.000	.127	1.000
	1998	Bw grps	12726.352	2	6363.176	19.802	.000	.102	1.000
	1999	Bw grps	15436.640	2	7718.320	25.903	.000	.129	1.000
	2000	Bw grps	11436.029	2	5718.015	18.712	.000	.097	1.000
	2001	Bw grps	13406.563	2	6703.281	22.946	.000	.116	1.000
	2002	Bw grps	13727.900	2	6863.950	23.354	.000	.118	1.000

Note: Bw grps = Between groups.

Table 73. Summary of Sidak Post Hoc Analysis of Simple Main Effect of *Level of Net Income* at *Year* for *Community Relations* and *Corporate Governance*

CSR Variable	Year	Level of Net Income		
Community Relations	1991	High	Medium	Low
	1992	High	Medium	Low
	1993	High	Medium	Low
	1994	High	Medium	Low
	1995	High	Medium	Low
	1996	High	Medium	Low
	1997	High	Medium	Low
Corporate Governance	1992	Low	Medium	High
	1993	Low	Medium	High
	1994	Low	Medium	High
	1995	Low	Medium	High
	1996	Low	Medium	High
	1997	Low	Medium	High
	1998	Low	Medium	High
	1999	Low	Medium	High
	2000	Low	Medium	High
	2001	Low	Medium	High
	2002	Low	Medium	High

In Table 73, the groups of *Level of Net Income* are presented in descending order according to their group means for each year per CSR variable. Reviewing Table 73, one can note that the order of groups of *Level of Net Income* flows from High to Low for *Community Relations*, but from Low to High for *Corporate Governance*; meaning that companies with the highest net incomes rated highest in *Community Relations*, while the companies with the lowest net incomes rated highest in *Corporate Governance*. The differences between all three groups of *Level of Net Income* for *Community Relations* were significant in 1993, whereas only companies with the High level were significantly different from those in both the Medium and Low levels in the years of 1991-92, 1994, 1996-97; while companies with the High level significantly differed from only those with the Low level in 1995. For *Corporate Governance*, all three levels were found to be significantly different for the years of 1993, 1995-97, and 2001-02. For the years of 1992, 1994, 1998-2000, the High level significantly differed (on the low end) from the average performance of companies in the Medium and Low levels.

**CSR Analysis for *Level of Total Assets*.** The independent variable of *Level of Total Assets* was incorporated for this set of analyses of the CSR variables. This variable was categorized by three groups (Low, Medium, High) for the analyses, and the means for the seven CSR variables for the three groups, listed by year, are presented in Table 74.

Table 74. Summary of Means for CSR Variables for *Level of Total Assets* from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Community Relations</b>	1991	46.60	49.38	59.20
	1992	47.52	50.45	61.15
	1993	48.14	51.93	61.56
	1994	47.22	51.31	55.97
	1995	47.22	51.52	54.93
	1996	45.99	49.16	55.56
	1997	46.91	49.07	55.66
	1998	46.91	47.51	51.76

Table 74 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	1999	46.72	46.77	50.77
	2000	46.10	46.87	46.78
	2001	46.10	46.18	46.40
	2002	45.80	46.59	48.35
<b>Diversity</b>	1991	41.69	43.39	47.78
	1992	41.89	44.04	49.44
	1993	42.59	44.44	51.07
	1994	43.88	46.60	55.93
	1995	44.23	47.47	57.89
	1996	45.92	47.28	59.53
	1997	45.92	49.14	61.11
	1998	46.84	49.82	61.89
	1999	46.66	51.23	62.97
	2000	48.39	51.80	63.15
	2001	48.25	52.25	64.68
	2002	48.25	52.31	63.80
<b>Employee Relations</b>	1991	48.18	44.32	46.00
	1992	51.36	45.73	48.36
	1993	51.36	46.77	49.27
	1994	51.73	49.18	49.64
	1995	51.91	51.05	49.64
	1996	50.36	49.14	51.28
	1997	50.38	49.41	54.47
	1998	51.85	50.37	54.11
	1999	51.76	50.37	53.10
	2000	52.38	50.41	54.19
	2001	51.20	49.50	52.65
	2002	50.66	48.55	52.38
<b>Environment</b>	1991	55.11	50.60	47.06
	1992	55.68	49.45	43.80
	1993	55.97	48.35	43.70
	1994	55.00	48.32	43.69
	1995	55.48	49.14	44.14
	1996	56.16	49.95	46.82
	1997	57.30	50.43	46.63
	1998	57.39	50.49	45.40
	1999	57.10	50.06	44.36
	2000	57.10	50.65	43.22
	2001	56.82	48.58	42.61
	2002	57.30	50.44	44.16
<b>Product</b>	1991	53.65	52.63	49.67
	1992	54.85	53.02	48.48
	1993	55.40	51.98	50.13
	1994	54.53	50.12	50.13
	1995	54.97	49.36	49.57
	1996	53.88	49.04	48.58
	1997	53.77	48.99	47.50
	1998	54.20	48.56	46.64
	1999	53.66	48.94	44.78
	2000	54.64	47.95	44.56

Table 74 Continued

CSR Variable	Year	Low	Medium	High
	2001	54.31	46.44	41.19
	2002	53.44	45.96	38.59
<b>Corporate Governance</b>	1991	56.41	56.41	56.26
	1992	59.81	55.01	52.27
	1993	59.95	52.42	49.02
	1994	58.18	51.68	45.48
	1995	57.00	49.91	41.05
	1996	59.51	50.43	43.41
	1997	61.14	49.69	40.45
	1998	57.30	47.55	37.94
	1999	58.33	48.21	39.42
	2000	55.82	47.18	38.24
	2001	55.23	45.63	37.06
	2002	54.49	44.74	36.76
<b>Total CSR</b>	1991	301.50	296.53	305.84
	1992	310.95	297.51	303.41
	1993	313.26	295.74	304.68
	1994	310.43	297.16	300.86
	1994	310.80	298.45	297.20
	1996	311.85	294.94	305.35
	1997	315.40	296.74	305.99
	1998	314.52	294.27	297.77
	1999	314.17	295.60	295.38
	2000	314.48	294.91	290.18
	2001	311.94	288.61	284.58
	2002	309.92	288.59	283.94

The mixed model ANOVA, including complete probing for post hoc follow-ups for the CSR Analyses with the classification variable of *Level of Total Assets*, can be found in Appendix M. Similar to the previously described set of analyses with *Level of Net Income* as the classification variable, criteria-based significant interaction effects were produced for the same two CSR variables of *Community Relations* and *Corporate Governance* (Table 75) for the analyses that utilized *Level of Total Assets*. Thus, the former two variables were excluded from the main effects analyses. A summary of the within subjects main effects analysis for the other five CSR variables is included in Table 76.

Table 75. Summary of Within Subjects Effects for *Year* and *Level of Total Assets* Using Lower Bound Estimates for *Community Relations* and *Corporate Governance*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Community Relations</b>	year	22786.791	1	22786.791	21.087	.000	.057	.996
	year*TAlevel	13034.979	2	6517.490	6.031	.003	.033	.882
	Error	377140.921	349	1080.633				
<b>Corporate Governance</b>	year	46176.993	1	46176.993	32.311	.000	.085	1.000
	year*TAlevel	17711.192	2	8855.596	6.196	.002	.034	.891
	Error	498775.093	349	1429.155				

Note: TAlevel = Level of Total Assets.

Table 76. Summary of Within Subjects Effects for *Year* and *Level of Total Assets* Using Lower Bound Estimates

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Diversity</b>	year	51628.930	1	51628.930	57.142	.000	.141	1.000
	year*TAlevel	7585.379	2	3792.690	4.198	.016	.023	.736
	Error	315328.166	349	903.519				
<b>Employee Relations</b>	year	10603.867	1	10603.867	8.869	.003	.025	.844
	year*TAlevel	3877.461	2	1938.730	1.622	.199	.009	.342
	Error	417256.067	349	1195.576				
<b>Environment</b>	year	2334.400	1	2334.400	2.532	.112	.007	.355
	year*TAlevel	1888.103	2	944.052	1.024	.360	.006	.228
	Error	321764.797	349	921.962				
<b>Product</b>	year	13914.927	1	13914.927	14.945	.000	.041	.971
	year*TAlevel	7522.491	2	3761.245	4.040	.018	.023	.718
	Error	324947.660	349	931.082				
<b>Total CSR<sup>a</sup></b>	year	45514.366	1	45514.366	6.863	.009	.019	.743
	year*TAlevel	49655.917	2	24827.958	3.744	.025	.021	.683
	Error	2314616.652	349	6632.139				

Note: TAlevel = Level of Total Assets.

<sup>a</sup> The significant difference for year was not interpreted because of a lack of a medium effect size or high power.

A summary of the main effects analysis of the within subjects factor of *Year*, for the CSR variables with non-significant interaction effects, is included within Table 76. In this table, the variables of *Diversity*, *Employee Relations*, and *Product* are shown to have significant differences across years. A linear trend was present for the variables of *Diversity* and *Product* (See the Tests of Within-Subjects Contrasts tables in Appendix M). Specific differences across years for the previously listed variables can be found in the summary table

of the post hoc analysis, Table 77, where the years are listed in descending order of group means per CSR variable, and underline notation is used to represent the years that are not significantly different from each other.

Table 77. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Level of Total Assets* Analysis

CSR Var	Year											
<b>Div</b>	2001	2002	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp</b>	2000	1998	1999	1997	2001	1995	2002	1996	1994	1993	1992	1991
<b>Pro</b>	1993	1992	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002

Note: Var = Variable, Div = Diversity, Emp = Employee Relations, Pro = Product.

As shown in Table 77, no significant differences across years were revealed by using the Sidak post hoc analysis for the variable of *Employee Relations*, although it had a significant difference and high power in the within subjects analysis. Its low strength of association (.025) and Sidak being conservative likely contributed to no differences being found. For the variable of *Diversity*, the mean scores for *Total Assets* mostly increased over time, with significant differences mainly between the three years of 1991, 1992, and 1993 with the lowest scores, and the remaining years with higher scores. Although, the two years of 2001 and 2002 with the top scores were shown to significantly differ as well. For *Product*, the mean scores were higher in earlier years than later ones in almost all cases. The year of 2002 with the lowest scores significantly differed from the first six years of top scores.

A summary of the main effects analysis of the between subjects variable of *Level of Total Assets* for the five CSR variables (*Diversity*, *Employee Relations*, *Environment*,

*Product*, and *Total CSR*) that did not have significant interaction effects is included in Table 78. Of these variables, a significant difference between groups of *Level of Total Assets* was found for all except *Employee Relations*. Summary results from the Sidak post hoc analysis of these five variables are included in Table 79.

Table 78. Summary of Between Groups Main Effects Analysis for Main Effect of *Level of Total Assets*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Diversity</b>	TAlevel	100793.911	2	50396.955	26.752	.000	.133	1.000
	Error	657475.453	349	1883.884				
<b>Employee Relations</b>	TAlevel	6314.974	2	3157.487	1.517	.221	.009	.322
	Error	726630.473	349	2082.036				
<b>Environment</b>	TAlevel	73372.539	2	36686.269	16.052	.000	.084	1.000
	Error	797641.703	349	2285.506				
<b>Product</b>	TAlevel	31845.853	2	15922.926	6.985	.001	.038	.925
	Error	795549.670	349	2279.512				
<b>Total CSR</b>	TAlevel	201054.370	2	100527.185	5.280	.006	.029	.834
	Error	6644147.234	349	19037.671				

Note: TAlevel = Level of Total Assets.

Table 79. Summary of Sidak Post Hoc Analysis for *Level of Total Assets*

CSR Variable	Level of Total Assets		
<b>Diversity</b>	High	Medium	Low
<b>Environment</b>	Low	Medium	High
<b>Product</b>	Low	Medium	High
<b>Total CSR</b>	Low	High	Medium

The three groups of *Level of Total Assets* are presented in descending order of their group means per CSR variable in Table 79. Reviewing Table 79, one might note that the rate of performance for *Diversity* was highest for companies with the High *Level of Total Assets*, with the Medium and Low levels being significantly lower. However, the reverse was found



for the variables of *Environment*, *Product*, and *Total CSR*, where organizations with the Low *Level of Total Assets* were the highest performers in all three cases. For *Environment*, the differences between all three groups of *Level of Total Assets* were significantly different; whereas the Low level was the only significantly different one for *Product*. Interestingly, organizations with the Low level significantly outperformed those with the Medium level for the variable of *Total CSR*, while organizations with the High level for this variable remained as the middle performers.

Since interaction effects using the researcher's established criteria were present for the two CSR variables of *Community Relations* and *Corporate Governance*, the analysis was carried to the simple main effects level. Summary tables that reveal the profiles for the within subjects factor of *Year*, and the between groups factor of *Level of Total Assets*, in addition to the post hoc follow-up analyses for these profiles are included as Tables 80-83.

A summary of the simple main effects analysis for the within subjects factor of *Year* for the CSR variables of *Community Relations* and *Corporate Governance* is presented in Table 80. Significant differences across years were found in the Medium and High *Level of Total Assets* for both CSR variables. The trend for the High level for both variables and the Medium level for *Corporate Governance* was linear (See the Tests of Within-Subjects Contrasts tables in Appendix M). The specific differences across years are illustrated by the results of the summary of the post hoc analysis in Table 81, where years are listed in descending order of yearly means by the *Level of Total Assets* group.

Table 80. Summary of Simple Main Effects Analysis of *Year* at *Level of Total Assets* for *Community Relations* and *Corporate Governance*

CSR Variable	Level of Total Assets	F	df	Error df	p	$h_p^2$	Power
Community Relations	Low	.401	11	339	.955	.013	.220

Table 80 Continued

CSR Variable	Level of Total Assets	F	df	Error df	p	$h_p^2$	Power
Corporate Governance	Medium	2.647	11	339	.003	.079	.972
	High	8.520	11	339	.000	.217	1.000
	Low	2.619	11	339	.003	.078	.971
	Medium	7.401	11	339	.000	.194	1.000
	High	11.445	11	339	.000	.271	1.000

Table 81. Summary of Sidak Post Hoc Analysis for Simple Main Effect of *Year* at *Level of Total Assets* for *Community Relations* and *Corporate Governance*

Community Relations												
Total Assets Level	Year											
Med	1993	1995	1994	1992	1991	1996	1997	1998	2000	1999	2002	2001
High	1993	1992	1991	1994	1997	1996	1995	1998	1999	2002	2000	2001
Corporate Governance												
Total Assets Level	Year											
Low	1997	1993	1992	1996	1999	1994	1998	1995	1991	2000	2001	2002
Med	1991	1992	1993	1994	1996	1995	1997	1999	1998	2000	2001	2002
High	1991	1992	1993	1994	1996	1995	1997	1999	2000	1998	2001	2002

Note: Med = Medium.

Table 81 is a depiction of the significant differences that occurred across years for the groups of *Level of Total Assets* that were interpreted by using the Sidak post hoc follow up to the simple main effects analysis for the variables of *Community Relations* and *Corporate Governance*. As shown in the table, no significant differences were found using the Sidak

post hoc analysis for organizations in the Medium group of *Level of Total Assets* for *Community Relations* and those with the Low level for *Corporate Governance*, even though these variables had significant differences and high power estimates in the simple main effects analysis. Perhaps the conservative nature of Sidak and the medium strengths of association (.079 and .078, respectively) contributed to the lack of differences found. For companies with the High *Level of Total Assets* for *Community Relations*, differences mostly existed between the three years with the highest and lowest scores. For the Medium and High *Level of Total Assets* for *Corporate Governance*, organizations' scores in earlier years typically outperformed those in later years. Specifically for the Medium level, the year of 1991 with the highest scores significantly differed from the two years of 2002 and 2001 with the lowest scores. For the High level, the differences were between the two top years of 1991 and 1992 and the seven years with the lowest scores.

Table 82 is a summary of the simple main effects analysis for the between groups factor of *Level of Total Assets* by *Year*, for the variables of *Community Relations* and *Corporate Governance*. For the variable of *Community Relations*, significant differences between groups were found in half of the years in the time period, from years 1991-1994 and 1996-1997. For *Corporate Governance*, significant differences did not start occurring until 1992, but were present in each year through the remainder of the time period until 2002. Review Table 83 for the specific differences between groups for each year with significance.

Table 82. Summary of Simple Main Effects Analysis of *Level of Total Assets* at *Year* for *Community Relations* and *Corporate Governance*

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
Community Relations	1991	Bw grps	8080.006	2	4040.003	15.769	.000	.083	.999
	1992	Bw grps	9493.440	2	4746.720	16.749	.000	.088	1.000
	1993	Bw grps	8672.418	2	4336.209	12.065	.000	.065	.995
	1994	Bw grps	3375.571	2	1687.786	5.626	.004	.031	.858
	1995	Bw grps	2636.835	2	1318.418	4.360	.013	.024	.753

Table 82 Continued

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
	1996	Bw grps	4255.730	2	2127.865	8.650	.000	.047	.968
	1997	Bw grps	3798.639	2	1899.320	7.129	.001	.039	.930
	1998	Bw grps	1328.690	2	664.345	2.587	.077	.015	.514
	1999	Bw grps	1068.188	2	534.094	2.010	.136	.011	.414
	2000	Bw grps	36.435	2	18.217	.082	.921	.000	.062
	2001	Bw grps	4.250	2	2.125	.010	.990	.000	.051
	2002	Bw grps	308.653	2	154.327	.597	.551	.003	.149
Corporate Governance	1991	Bw grps	1.440	2	.720	.019	.981	.000	.053
	1992	Bw grps	2591.653	2	1295.827	9.622	.000	.052	.981
	1993	Bw grps	5634.614	2	2817.307	17.189	.000	.090	1.000
	1994	Bw grps	7103.761	2	3551.881	15.388	.000	.081	.999
	1995	Bw grps	11269.227	2	5634.614	23.221	.000	.117	1.000
	1996	Bw grps	11502.563	2	5751.281	22.514	.000	.114	1.000
	1997	Bw grps	18928.480	2	9464.240	34.785	.000	.166	1.000
	1998	Bw grps	16478.940	2	8239.470	26.472	.000	.132	1.000
	1999	Bw grps	15771.253	2	7885.626	26.492	.000	.132	1.000
	2000	Bw grps	13599.699	2	6799.849	22.668	.000	.115	1.000
	2001	Bw grps	14550.804	2	7275.402	25.145	.000	.126	1.000
	2002	Bw grps	13896.409	2	6948.205	23.644	.000	.119	1.000

Note: Bw grps = Between groups.

Table 83. Summary of Sidak Post Hoc Analysis for Simple Main Effect of *Level of Total Assets* at *Year* for *Community Relations* and *Corporate Governance*

CSR Variable	Year	Level of Total Assets		
Community Relations	1991	High	Medium	Low
	1992	High	Medium	Low
	1993	High	Medium	Low
	1994	High	Medium	Low
	1996	High	Medium	Low
	1997	High	Medium	Low
	1992	Low	Medium	High
Corporate Governance	1993	Low	Medium	High

Table 83 Continued

CSR Variable	Year	Level of Total Assets	CSR Variable	Year
	1994	Low	Medium	High
	1995	Low	Medium	High
	1996	Low	Medium	High
	1997	Low	Medium	High
	1998	Low	Medium	High
	1999	Low	Medium	High
	2000	Low	Medium	High
	2001	Low	Medium	High
	2002	Low	Medium	High

In Table 83, the three groups of *Level of Total Assets* are presented in descending order of their group means by year per CSR variable. Once again, the pattern of results for this level of analysis with *Level of Total Assets* is similar to that of the same level of analysis with *Level of Net Income* for the variables *Community Relations* and *Corporate Governance*. Specifically, the order of performance of groups of *Level of Total Assets* for *Community Relations* opposes the order of performance of groups of *Level of Total Assets* for *Corporate Governance*. For *Community Relations*, companies with the High level outrank those with the Medium and Low levels, respectively; while organizations with the Low level outrank those with the Medium and High levels, respectively, for *Corporate Governance*. Reviewing the specific differences between groups for *Community Relations*, one can see that organizations with the High level significantly differ from those in the two other levels in 1991-93 and 1996-97; while they only significantly differ from those in the Low level in 1994. There were more significant differences between groups for *Corporate Governance*, in that all three groups were different for the years of 1994-2002. In years 1992-93, only

organizations with the Low level significantly differed (outperformed) from those with both the Medium and High levels.

### **CFP Analyses**

This set of analyses was performed to answer the research question concerned with determining if companies that differed in levels of the CSR practices originally obtained from KLD differed in terms of the average annual values and growth rates of the financial performance variables of *Return on Assets (ROA)*, *Sales*, and *Market Capitalization*, from the period of 1991-2002. For each of these subsets of analyses, the levels of the seven CSR variables, represented by a pooled value from the twelve annual scores, were utilized as the independent variables. The dependent variables for each subset of analyses were comprised of annual scores from 1991-2002, for each of the CFP variables (*Market Capitalization*, *Sales*, *ROA*, *Market Capitalization Annual Growth*, *Sales Annual Growth*, *ROA Annual Growth*). For *Market Capitalization*, *Sales*, and *ROA*, results were calculated for twelve years, but only eleven years could be assessed for *Market Capitalization Annual Growth*, *Sales Annual Growth*, and *ROA Annual Growth* due to the lag year calculation involved with obtaining these annual growth values.

#### *CFP Analyses with Levels of Corporate Social Responsibility Variables*

For all analyses listed in this section, a two-factor factorial mixed model ANOVA, with *Year* as the within subjects variable, levels of the seven CSR variables (*Level of Community Relations*, *Level of Diversity*, *Level of Employee Relations*, *Level of Environment*, *Level of Product*, *Level of Corporate Governance*, and *Level of Total CSR*) as the between subjects part, and annual values for one of the CFP variables as the dependent

variables were utilized. A separate set of analyses was run for each of the independent Level of CSR variables, resulting in seven sets of analyses per CFP variable. The results for these analyses are presented by the dependent or CFP variables. Within each set of analyses, the test of sphericity was violated, thus the Lower Bound estimates from the ANOVA tables were used to make decisions about significance. Furthermore, significance values for interaction effects were viewed in conjunction with the partial eta squared and power estimates, to determine whether main effects or simple main effects should be explored. Interaction effects with significance and at least a medium partial eta squared value ( $> .06$ ) or high power ( $> .8$ ) were analyzed at the simple main effects level. Interaction effects with significance and either a low partial eta squared value or low to medium power were addressed at the main effects level for the factors involved in the interaction.

### **CFP Analyses without Criteria-based Significant Interaction Effects**

**CFP Analysis with DV, *Return on Assets (ROA)*.** The dependent variable incorporated in this set of analyses was *ROA*. *ROA* is a CFP variable that has commonly been used in studies relating CSR and CFP. The Level of CSR variables, employed as independent variables for these analyses, were categorized in terms of Low, Medium, or High performance. The means for *ROA* for the seven Level of CSR variables are in Table 84.

Table 84. Summary of Means for *ROA* for Level of CSR Variables from 1991-2002

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Level of Community Relations</b>	1991	7.40	6.81	7.85
	1992	6.26	6.75	7.28
	1993	7.43	7.25	6.83
	1994	8.41	8.72	7.84
	1995	8.76	8.41	7.05
	1996	8.24	8.92	7.75
	1997	8.03	8.39	7.85
	1998	7.65	8.22	8.05
	1999	7.58	9.42	8.80
	2000	8.53	8.49	8.87
	2001	5.56	5.44	8.12

Table 84 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	2002	3.10	5.13	6.82
<b>Level of Diversity</b>	1991	7.53	6.93	7.74
	1992	6.70	6.40	6.77
	1993	7.84	7.15	6.63
	1994	8.42	8.51	8.06
	1995	9.15	8.10	7.49
	1996	8.76	7.90	8.33
	1997	8.12	7.82	8.45
	1998	7.53	7.71	8.63
	1999	8.17	7.72	9.41
	2000	8.51	8.55	8.76
	2001	5.46	6.14	6.80
	2002	3.22	4.74	5.46
<b>Level of Employee Relations</b>	1991	7.16	6.85	8.40
	1992	6.67	6.02	7.25
	1993	7.04	6.98	8.07
	1994	7.59	8.03	10.37
	1995	7.30	8.40	10.19
	1996	7.70	7.81	10.20
	1997	7.38	7.72	10.00
	1998	7.36	7.34	9.67
	1999	7.70	7.86	10.14
	2000	7.97	7.87	10.85
	2001	5.55	5.79	7.52
	2002	4.23	3.88	5.45
<b>Level of Environment</b>	1991	6.17	8.29	6.71
	1992	4.25	7.84	6.56
	1993	5.72	8.45	6.50
	1994	7.08	9.18	8.09
	1995	7.36	8.98	7.97
	1996	7.48	9.06	7.69
	1997	6.86	8.89	7.75
	1998	6.84	8.87	7.02
	1999	7.53	8.77	8.19
	2000	7.31	9.38	8.38
	2001	5.88	6.09	6.23
	2002	3.73	4.84	4.23
<b>Level of Product</b>	1991	7.44	7.19	7.54
	1992	6.06	6.56	7.14
	1993	7.37	7.04	7.55
	1994	7.74	7.85	9.91
	1995	7.62	7.77	9.95
	1996	7.98	7.92	9.33
	1997	7.40	7.90	9.04
	1998	7.35	7.60	8.86
	1999	8.69	7.80	8.90
	2000	7.79	8.01	10.41
	2001	6.29	5.75	6.48
	2002	4.47	3.97	5.14



Table 84 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Level of Corporate Governance</b>	1991	7.30	7.00	9.37
	1992	6.53	6.43	7.72
	1993	6.65	7.16	9.15
	1994	8.20	8.25	9.38
	1995	8.16	8.17	9.40
	1996	8.47	8.15	8.80
	1997	7.90	7.86	9.75
	1998	8.62	7.23	9.87
	1999	8.39	8.00	9.81
	2000	10.14	7.54	11.08
	2001	6.38	5.71	7.47
	2002	3.80	4.44	5.50
<b>Level of Total CSR</b>	1991	6.81	7.41	7.74
	1992	5.35	6.93	7.18
	1993	7.20	7.57	6.69
	1994	7.72	8.69	8.37
	1994	8.13	8.26	8.58
	1996	8.13	8.42	8.26
	1997	7.63	8.04	8.61
	1998	7.41	7.96	8.18
	1999	7.99	8.12	8.98
	2000	7.69	8.63	9.43
	2001	5.26	6.23	6.57
	2002	3.04	4.32	5.92

The mixed model ANOVAs, including complete probing for post hoc follow-ups for the CFP Analyses of *ROA* with the Levels of CSR classification variables, can be found in Appendix N. Since the criteria for significant interaction effects were unmet in the case of the analyses with each Level of CSR variable, results were interpreted at the main effects level.

Table 85 is a summary of the main effects analysis of the within subjects variable of *Year*. As one can note, significant differences across years were found for all of the analyses with the Level of CSR variables. In addition, a quadratic trend was present in analyses with the variables of *Level of Diversity*, *Level of Product*, *Level of Employee Relations*, *Level of Environment*, and *Level of Total CSR* (See the Tests of Within-Subjects Contrasts tables in Appendix N). Refer to Table 86 for a summary of the Sidak post hoc analyses to determine

where the differences across years occurred. The years in Table 86 are listed in descending order according to their yearly means per dependent CSR variable.

Table 85. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *ROA* Analysis

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	year	3501.069	1	3501.069	12.461	.000	.038	.941
	year*comtot_lvl	1472.254	2	736.127	2.620	.074	.016	.520
	Error	89344.699	318	280.958				
<b>Level of Diversity</b>	year	5107.258	1	5107.258	18.040	.000	.054	.989
	year*divtot_lvl	788.409	2	394.205	1.392	.250	.009	.298
	Error	90028.544	318	283.109				
<b>Level of Employee Relations</b>	year	5553.771	1	5553.771	19.538	.000	.058	.993
	year*emptot_lvl	422.813	2	211.407	.744	.476	.005	.176
	Error	90394.140	318	284.258				
<b>Level of Environment</b>	year	4740.008	1	4740.008	16.696	.000	.050	.983
	year*envtot_lvl	536.214	2	268.107	.944	.390	.006	.213
	Error	90280.739	318	283.902				
<b>Level of Product</b>	year	4955.289	1	4955.289	17.442	.000	.052	.986
	year*protot_lvl	473.378	2	236.689	.833	.436	.005	.192
	Error	90343.575	318	284.099				
<b>Level of Corporate Governance</b>	year	3930.901	1	3930.901	13.860	.000	.042	.960
	year*cgovtot_lvl	625.020	2	312.510	1.102	.334	.007	.243
	Error	90191.933	318	283.622				
<b>Level of Total CSR</b>	year	4938.371	1	4938.371	17.376	.000	.052	.986
	year*CSRtot_lvl	438.919	2	219.460	.772	.463	.005	.181
	Error	90378.034	318	284.208				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRtot\_lvl = Level of Total CSR.

Table 86. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *ROA* Analysis

CSR Var	Year											
<b>Com Level</b>	2000	1999	1994	1996	1997	1995	1998	1991	1993	1992	2001	2002
<b>Div Level</b>	2000	1999	1994	1996	1995	1997	1998	1991	1993	1992	2001	2002

Table 86 Continued

<b>CSR Var</b>	<b>Year</b>											
<b>Emp Level</b>	2000	1994	1995	1996	1999	1997	1998	1991	1993	1992	2001	2002
<b>Env Level</b>	2000	1999	1994	1995	1996	1997	1998	1991	1993	1992	2001	2002
<b>Pro Level</b>	2000	1994	1999	1995	1996	1997	1998	1991	1993	1992	2001	2002
<b>Cgov Level</b>	2000	1999	1994	1995	1998	1997	1996	1991	1993	1992	2001	2002
<b>Tot CSR Level</b>	2000	1999	1995	1996	1994	1997	1998	1991	1993	1992	2001	2002

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Env = Environment, Pro = Product, Cgov = Corporate Governance, Tot CSR = Total CSR.

Table 86 depicts the differences among years as indicated using the Sidak post hoc analysis for the DV of *ROA*, presented by each independent Level of CSR variable. As shown in the table, no significant differences among years were found for the analyses with the IVs of *Level of Community Relations* and *Level of Corporate Governance*, although significant differences and high power estimates were present in the within subjects analysis for these variables. The low strengths of association (.038 and .042, respectively), along with Sidak being a conservative measure, could account for the lack of differences found. For the other Level of CSR variables, the patterns of differences among years were similar, with the year of 2000 consistently having the highest scores and 2002 with the lowest. The year of 2002 significantly differed from the year of 1994 in all cases, also from the year 1995 for the variables of *Level of Environment* and *Level of Product*, and additionally from the year 1996 for the variable of *Level of Employee Relations*.

Table 87 is a summary of the main effects analyses of the between groups (Level of CSR variables) for the dependent variable of *ROA*. Significant differences between groups were found for the variable of *Level of Employee Relations*. Table 88 is a summary of the Sidak post hoc analyses of *Level of Environment*.

Table 87. Summary of Between Groups Main Effects Analyses of Level of CSR Variables for *ROA*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	comtot_lvl	208.560	2	104.280	.390	.678	.002	.113
	Error	85070.793	318	267.518				
<b>Level of Diversity</b>	divtot_lvl	98.455	2	49.228	.184	.832	.001	.078
	Error	85180.899	318	267.864				
<b>Level of Employee Relations</b>	emptot_lvl	2732.050	2	1366.025	5.262	.006	.032	.832
	Error	82547.304	318	259.583				
<b>Level of Environment<sup>a</sup></b>	envtot_lvl	2418.360	2	1209.180	4.641	.010	.028	.780
	Error	82860.993	318	260.569				
<b>Level of Product</b>	protot_lvl	1114.821	2	557.410	2.106	.123	.013	.431
	Error	84164.533	318	264.668				
<b>Level of Corporate Governance</b>	cgovtot_lvl	1170.992	2	585.496	2.214	.111	.014	.450
	Error	84108.361	318	264.492				
<b>Level of Total CSR</b>	CSRtot_lvl	530.337	2	265.169	.995	.371	.006	.223
	Error	84749.016	318	266.506				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRtot\_lvl = Level of Total CSR.

<sup>a</sup> The significant difference of year was not interpreted because of a lack of either a medium effect size or high power.

Table 88. Summary of Sidak Post Hoc Analysis of Main Effects of Level of CSR Variables for *ROA*

CSR Variable	Level of CSR Variable		
<b>Level of Employee Relations</b>	High	Medium	Low

The groups of the Level of CSR variables are presented in descending order according to their group means relative to *ROA*. In reviewing Table 88, one can see that

organizations with the High level of *Level of Employee Relations* produced the greatest *ROA*, while those with the Low level produced the lowest *ROA*. Organizations with the High level were significantly different than those with both the Medium or Low levels.

**CFP Analysis with DV, *Sales*.** The variable of *Sales*, or the amount of goods and/or services exchanged for monetary value, was utilized as the dependent variable for this set of analyses. Yearly means for *Sales* for the Level of CSR variables, categorized in the three groups of Low, Medium, and High are presented in Table 89.

Table 89. Summary of Means for *Sales* for Level of CSR variables from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Level of Community Relations</b>	1991	5922.72	8935.31	12688.57
	1992	6043.58	9161.05	12625.12
	1993	6271.23	9282.65	12122.59
	1994	6815.86	9860.95	12405.14
	1995	7424.32	10428.17	12541.74
	1996	7681.15	10411.67	13212.09
	1997	8216.57	11041.70	14368.24
	1998	8532.41	11207.26	14713.58
	1999	9274.88	12058.53	16632.64
	2000	10275.72	13206.94	18194.67
	2001	10726.42	12615.99	18599.55
	2002	9986.91	12600.24	17948.02
<b>Level of Diversity</b>	1991	3879.00	5992.22	17497.97
	1992	3895.19	6131.06	17668.98
	1993	4024.68	6247.82	17461.25
	1994	4306.11	6614.65	18454.46
	1995	4618.01	7184.43	19064.41
	1996	4787.96	7576.38	19307.69
	1997	5123.17	8243.67	20533.17
	1998	5308.03	8898.11	20336.88
	1999	5771.56	9785.63	22358.43
	2000	6456.28	10776.81	24439.42
	2001	6761.10	11592.43	23406.17
	2002	6618.74	10962.58	22481.03
<b>Level of Employee Relations</b>	1991	5411.64	9240.61	11910.34
	1992	5439.26	9349.09	12161.12
	1993	5483.84	9323.00	12281.43
	1994	5781.41	9702.99	13305.13
	1995	6199.95	10231.67	13894.24
	1996	6509.16	10562.82	14053.11
	1997	6983.00	11575.81	14740.56
	1998	7289.17	11749.31	15137.45
	1999	7584.96	13628.98	16403.82

Table 89 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	2000	8022.99	15631.62	17794.17
	2001	8091.34	16459.80	17321.12
	2002	7950.72	15055.21	17191.55
<b>Level of Environment</b>	1991	17150.50	4997.29	5376.61
	1992	17293.67	5054.38	5543.51
	1993	17168.89	5129.36	5680.86
	1994	18188.22	5437.17	6017.91
	1995	19496.28	5580.16	6388.55
	1996	19674.51	5833.43	6829.92
	1997	20597.57	6496.60	7360.59
	1998	20012.48	7009.12	8076.52
	1999	22203.36	7918.61	8161.24
	2000	24703.09	8631.28	8861.41
	2001	25479.83	8505.25	9062.67
	2002	24300.67	8397.52	8297.33
<b>Level of Product</b>	1991	14934.34	5103.75	7599.48
	1992	14712.51	5256.90	7932.60
	1993	14432.79	5354.89	8169.93
	1994	14939.88	5626.44	9094.78
	1995	15586.77	5879.18	9915.86
	1996	15918.07	6155.80	10155.49
	1997	16784.41	6798.28	10791.43
	1998	16567.99	7015.97	11700.45
	1999	18269.22	7795.99	12567.57
	2000	20155.73	8630.61	13666.76
	2001	20112.39	9140.23	13425.70
	2002	19471.42	8298.64	13576.03
<b>Level of Corporate Governance</b>	1991	16645.64	5672.59	1347.12
	1992	16873.80	5736.34	1391.07
	1993	16764.63	5841.46	1428.81
	1994	17675.20	6231.31	1493.14
	1995	18884.77	6489.16	1558.16
	1996	19335.62	6736.79	1606.62
	1997	20478.67	7342.48	1711.46
	1998	20394.00	7820.23	1817.36
	1999	22453.62	8569.77	1891.85
	2000	24670.24	9436.13	2120.76
	2001	24365.39	9854.27	2175.26
	2002	23782.51	9275.46	1951.10
<b>Level of Total CSR</b>	1991	12122.08	5549.98	9390.83
	1992	11944.20	5750.78	9591.08
	1993	11761.70	5861.54	9711.49
	1994	12253.55	6216.75	10484.26
	1994	13157.72	6575.29	10838.50
	1996	13615.74	6791.15	11071.69
	1997	14152.28	7518.59	11864.12
	1998	13593.27	7986.18	12625.467
	1999	15273.09	8680.02	13672.717
	2000	16858.73	9773.82	14547.895

Table 89 Continued

CSR Variable	Year	Low	Medium	High
	2001	17658.87	9914.17	14205.159
	2002	17264.00	8994.92	14262.596

The mixed model ANOVAs, including complete probing for post hoc follow-ups for the CFP Analyses of *Sales* with the Levels of CSR classification variables, can be found in Appendix O.

Table 90 is a summary of the main effects analysis of the within subjects variable of *Year*. Reviewing this table, one can note that there are significant differences across years for all seven analyses with the Level of CSR variables. A linear trend was present for the variables of *Level of Community Relations*, *Level of Diversity*, *Level of Employee Relations*, *Level of Environment*, *Level of Product*, and *Level of Total CSR* (See the Tests of Within-Subjects Contrasts tables in Appendix O). Refer to Table 91 for an illustrated summary of where the differences across years occurred. The years in Table 91 are listed in descending order of annual means per Level of CSR variable, and are linked with underline notation used to demonstrate non-significance of differences.

Table 90. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Sales* Analysis

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	year	1144E+010	1	11447116031.469	32.369	.000	.086	1.000
	year*com_lvl	812356753.575	2	406178376.787	1.149	.318	.007	.252
	Error	1220E+011	345	353643902.894				
<b>Level of Diversity</b>	year	1222E+010	1	12220527995.779	34.700	.000	.091	1.000
	year*div_lvl	1319986465.548	2	659993232.774	1.874	.155	.011	.389
	Error	1214E+011	345	352172512.425				
<b>Level of Employee Relations</b>	year	1320E+010	1	13201519226.667	37.750	.000	.099	1.000
	year*emp_lvl	2170867286.264	2	1085433643.132	3.104	.046	.018	.596
	Error	1206E+011	345	349706191.206				
<b>Level of Environment</b>	year	1255E+010	1	12550584085.359	35.878	.000	.094	1.000
	year*env_lvl	2133032902.514	2	1066516451.257	3.049	.049	.017	.587
	Error	1206E+011	345	349815856.086				

Table 90 Continued

<b>CSR Variable</b>	<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>	<b>h<sub>p</sub><sup>2</sup></b>	<b>Power</b>
<b>Level of Product</b>	year	1273E+010	1	12733190438.210	36.006	.000	.095	1.000
	year*pro_lvl	812271826.336	2	406135913.168	1.148	.318	.007	.252
	Error	1220E+011	345	353644149.060				
<b>Level of Corporate Governance</b>	year	6145838267.220	1	6145838267.220	17.652	.000	.049	.987
	year*cgov_lvl	2699532158.973	2	1349766079.487	3.877	.022	.022	.699
	Error	1201E+011	345	348173829.256				
<b>Level of Total CSR</b>	year	1207E+010	1	12071452697.516	34.040	.000	.090	1.000
	year*CSR_lvl	474956561.894	2	237478280.947	.670	.513	.004	.162
	Error	1223E+011	345	354621874.465				

*Note:* comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Product, CSRTot\_lvl = Level of Total CSR.

Table 91. Summary of Sidak Post Hoc Analysis for Main Effect of Year in Sales Analysis

<b>CSR Var</b>	<b>Year</b>											
<b>Com Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1992	1993	1991
<b>Div Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Emp Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Env Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Pro Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Cgov Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991
<b>Tot CSR Level</b>	2001	2000	2002	1999	1998	1997	1996	1995	1994	1993	1992	1991

*Note:* Var = Variable, Com = Community Relations, Div = Diversity, Emp = Employee Relations, Env = Environment, Pro = Product, Cgov = Corporate Governance, Tot CSR = Total CSR.



Table 91 depicts the differences among years as indicated by the Sidak post hoc analysis for the DV of *Sales*, presented by each independent CSR variable. As shown in the table, no significant differences among years were found for the analyses with the IV of *Level of Corporate Governance*, although a significant difference and high power estimate were present in the within subjects analysis for this variable. Perhaps the low strength of association (.049) and the conservative nature of Sidak attributed to no differences being found. For the other Level of CSR variables, the patterns of differences among years were similar, with the year of 2001 consistently with the highest scores and 1991 with the lowest. Furthermore, with the exception of the results for *Level of Employee Relations*, the five years in which organizations scored the lowest significantly differed from the five years in which they scored the highest, withstanding the year of 1998, for the analyses with the IVs of *Level of Community Relations*, *Level of Diversity*, *Level of Product*, and *Level of Total CSR*. For *Level of Employee Relations*, 1998 was included with the six years with the highest scores, which were different from the five years with the lowest.

Reflected in Table 92 are the values for the between groups main effects analyses of the CSR variables for *Sales*. Significant differences were found between groups for the variables of *Level of Diversity*, *Level of Employee Relations*, *Level of Environment*, *Level of Product*, and *Level of Corporate Governance*. Included in Table 93 are summaries of the post hoc analyses for these variables.

Table 92. Summary of Between Groups Main Effects Analyses of Level of CSR Variables for *Sales*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations<sup>a</sup></b>	com_lvl	2878E+010	2	14390640447.711	3.175	.043	.018	.606
	Error	1563E+012	345	4532250837.333				
<b>Level of Diversity</b>	div_lvl	1473E+011	2	73654202547.783	17.584	.000	.093	1.000
	Error	1445E+012	345	4188693955.594				

Table 92 Continued

<b>CSR Variable</b>	<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>	<b>h<sub>p</sub><sup>2</sup></b>	<b>Power</b>
<b>Level of Employee Relations</b>	emp_lvl	4591E+010	2	22958312265.567	5.122	.006	.029	.822
	Error	1546E+012	345	4482583174.621				
<b>Level of Environment</b>	env_lvl	1495E+011	2	74755115578.089	17.874	.000	.094	1.000
	Error	1442E+012	345	4182311851.070				
<b>Level of Product</b>	pro_lvl	7033E+010	2	35168087376.381	7.971	.000	.044	.954
	Error	1522E+012	345	4411801869.631				
<b>Level of Corporate Governance</b>	cgov_lvl	1656E+011	2	82803986130.753	20.022	.000	.104	1.000
	Error	1426E+012	345	4135651731.924				
<b>Level of Total CSR<sup>b</sup></b>	CSR_lvl	3457E+010	2	17286458153.288	3.828	.023	.022	.693
	Error	1557E+012	345	4515463488.315				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRtot\_lvl = Level of Total CSR.

<sup>a, b</sup> The significant difference between groups was not interpreted because of a lack of either a medium effect size or high power.

Table 93. Summary of Sidak Post Hoc Analysis of Main Effects of Level of CSR Variables for *Sales*

<b>CSR Variable</b>	<b>Level of CSR Variable</b>		
<b>Level of Diversity</b>	High	Medium	Low
<b>Level of Employee Relations</b>	High	Medium	Low
<b>Level of Environment</b>	Low	High	Medium
<b>Level of Product</b>	Low	High	Medium
<b>Level of Corporate Governance</b>	Low	Medium	High

In Table 93, the three groups of the Level of CSR variables are presented in descending order of the group mean relative to *Sales*. In reviewing Table 93, one can see that the level of *Sales* corresponds with the level of performance with the CSR variables of *Level of Diversity* and *Level of Employee Relations*, but a different result was found for *Level of*

*Environment*, *Level of Product*, and *Level of Corporate Governance*, in that organizations with the Low levels of these variables produced the highest levels of *Sales*. For *Level of Diversity*, organizations with the High level had significantly higher *Sales* than organizations with both the Medium and Low levels, but for *Level of Employee Relations*, organizations with the High level were only significantly different than those with the Low level. In the cases of *Level of Environment* and *Level of Corporate Governance*, organizations with the Low level significantly differed from those with the other two levels, and although not significantly different from one another, organizations with the Medium level produced a lower amount of *Sales* than those with the High level for *Level of Corporate Governance*. The latter statement is also true for *Level of Product*, where organizations with the Low level (highest *Sales*) significantly differed from those with the Medium level (lowest *Sales*).

**CFP Analysis with DV, *Return on Assets (ROA) Annual Growth*.** The dependent variable of *ROA Annual Growth* was incorporated for this set of analyses. *ROA Annual Growth* is simply the change in *ROA* for a company from year to year. Due to the lag year calculation necessary for the creation of this variable, there were 11 years included in these analyses instead of the usual 12 years. The Level of CSR variables, employed as independent variables for these analyses, were categorized in terms of Low, Medium, or High performance. The means for *ROA Annual Growth* for each of the seven Level of CSR variables, listed annually, are presented in Table 94.

Table 94. Summary of Means for *ROA Annual Growth* for Level of CSR Variables from 1991-2002

CSR Variable	Year	Low	Medium	High
Level of Community Relations	1991-1992	-1.14	-.06	-.57
	1992-1993	1.17	.50	-.45
	1993-1994	.98	1.47	1.01
	1994-1995	.35	-.31	-.78
	1995-1996	-.52	.51	.70
	1996-1997	-.21	-.53	.10

Table 94 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
	1997-1998	-.38	-.18	.20
	1998-1999	-.07	1.21	.75
	1999-2000	.95	-.93	.06
	2000-2001	-2.97	-3.05	-.75
	2001-2002	-2.47	-.31	-1.30
<b>Level of Diversity</b>	1991-1992	-.83	-.54	-.97
	1992-1993	1.14	.75	-.14
	1993-1994	.59	1.36	1.43
	1994-1995	.72	-.41	-.57
	1995-1996	-.39	-.20	.84
	1996-1997	-.63	-.08	.12
	1997-1998	-.60	-.11	.18
	1998-1999	.64	.02	.78
	1999-2000	.35	.83	-.65
	2000-2001	-3.05	-2.41	-1.96
	2001-2002	-2.24	-1.40	-1.34
<b>Level of Employee Relations</b>	1991-1992	-.49	-.83	-1.15
	1992-1993	.37	.96	.82
	1993-1994	.55	1.06	2.30
	1994-1995	-.29	.37	-.18
	1995-1996	.40	-.59	.00
	1996-1997	-.33	-.09	-.20
	1997-1998	-.02	-.39	-.33
	1998-1999	.34	.52	.47
	1999-2000	.27	.02	.71
	2000-2001	-2.42	-2.08	-3.34
	2001-2002	-1.32	-1.91	-2.07
<b>Level of Environment</b>	1991-1992	-1.93	-.45	-.14
	1992-1993	1.47	.61	-.06
	1993-1994	1.36	.73	1.59
	1994-1995	.28	-.20	-.12
	1995-1996	.12	.08	-.28
	1996-1997	-.61	-.17	.06
	1997-1998	-.03	-.02	-.74
	1998-1999	.70	-.10	1.17
	1999-2000	-.23	.61	.20
	2000-2001	-1.43	-3.28	-2.15
	2001-2002	-2.15	-1.25	-2.01
<b>Level of Product</b>	1991-1992	-1.38	-.63	-.40
	1992-1993	1.31	.48	.41
	1993-1994	.36	.80	2.36
	1994-1995	-.12	-.08	.04
	1995-1996	.36	.15	-.62
	1996-1997	-.58	-.02	-.29
	1997-1998	-.05	-.30	-.18
	1998-1999	1.34	.20	.04
	1999-2000	-.90	.21	1.51
	2000-2001	-1.50	-2.26	-3.93
	2001-2002	-1.82	-1.78	-1.34

Table 94 Continued

CSR Variable	Year	Low	Medium	High
<b>Level of Corporate Governance</b>	1991-1992	-.78	-.58	-1.65
	1992-1993	.12	.74	1.43
	1993-1994	1.55	1.09	.23
	1994-1995	-.04	-.08	.03
	1995-1996	.31	-.02	-.60
	1996-1997	-.57	-.29	.95
	1997-1998	.72	-.63	.11
	1998-1999	-.23	.77	-.05
	1999-2000	1.75	-.46	1.27
	2000-2001	-3.76	-1.83	-3.61
	2001-2002	-2.57	-1.26	-1.97
<b>Level of Total CSR</b>	1991-1992	-1.46	-.48	-.56
	1992-1993	1.85	.64	-.49
	1993-1994	.51	1.12	1.69
	1994-1995	.41	-.43	.21
	1995-1996	.00	.16	-.32
	1996-1997	-.50	-.37	.35
	1997-1998	-.22	-.09	-.43
	1998-1999	.58	.16	.80
	1999-2000	-.30	.51	.45
	2000-2001	-2.42	-2.40	-2.86
	2001-2002	-2.22	-1.91	-.65
	1991-1992	-1.46	-.48	-.56

The mixed model ANOVAs, including complete probing for post hoc follow-ups for the CFP Analyses of *ROA Annual Growth* with the Level of CSR classification variables, can be found in Appendix P. Included within Table 95 is a summary of the main effects analysis of the within subjects factor of *Year*. Significant differences across years were found for the analyses with all of the Level of CSR variables, with the exception of *Level of Community Relations*. Table 96 is a summary of the Sidak post hoc analysis, which reveals the differences across years. The years in Table 96 are listed in descending order of annual means per Level of CSR variable, and those years not significantly different are connected by underline notation.

Table 95. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *ROA Annual Growth* Analysis

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations<sup>a</sup></b>	year	2424.614	1	2424.614	6.751	.010	.021	.736
	year*com_lvl	1188.466	2	594.233	1.654	.193	.010	.348
	Error	114217.467	318	359.174				
<b>Level of Diversity</b>	year	3296.848	1	3296.848	9.133	.003	.028	.854
	year*div_lvl	609.934	2	304.967	.845	.431	.005	.195
	Error	114795.998	318	360.994				
<b>Level of Employee Relations</b>	year	3690.040	1	3690.040	10.205	.002	.031	.890
	year*emp_lvl	423.900	2	211.950	.586	.557	.004	.147
	Error	114982.032	318	361.579				
<b>Level of Environment</b>	year	3202.401	1	3202.401	8.882	.003	.027	.844
	year*env_lvl	756.698	2	378.349	1.049	.351	.007	.233
	Error	114649.234	318	360.532				
<b>Level of Product</b>	year	3337.340	1	3337.340	9.271	.003	.028	.859
	year*pro_lvl	928.188	2	464.094	1.289	.277	.008	.279
	Error	114477.745	318	359.993				
<b>Level of Corporate Governance</b>	year	3086.470	1	3086.470	8.584	.004	.026	.832
	year*cgov_lvl	1064.333	2	532.167	1.480	.229	.009	.315
	Error	114341.599	318	359.565				
<b>Level of Total CSR</b>	year	3227.257	1	3227.257	8.940	.003	.027	.846
	year*CSR_lvl	612.612	2	306.306	.849	.429	.005	.195
	Error	114793.320	318	360.985				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRTot\_lvl = Level of Total CSR.

<sup>a</sup> The significant difference for year was not interpreted because there was a lack of a medium effect size or high power.

Table 96. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *ROA Annual Growth* Analysis

CSR Var	Year										
<b>Div Level</b>	1993-1994	1992-1993	1998-1999	1999-2000	1995-1996	1994-1995	1997-1998	1996-1997	1991-1992	2001-2002	2000-2001
<b>Emp Level</b>	1993-1994	1992-1993	1998-1999	1999-2000	1994-1995	1995-1996	1996-1997	1997-1998	1991-1992	2001-2002	2000-2001
<b>Env Level</b>	1993-1994	1992-1993	1998-1999	1999-2000	1994-1995	1995-1996	1996-1997	1997-1998	1991-1992	2001-2002	2000-2001

Table 96 Continued

<b>CSR Var</b>	<b>Year</b>										
<b>Pro Level</b>	1993- 1994	1992- 1993	1998- 1999	1999- 2000	1995- 1996	1994- 1995	1997- 1998	1996- 1997	1991- 1992	2001- 2002	2000- 2001
<b>Cgov Level</b>	1993- 1994	1999- 2000	1992- 1993	1998- 1999	1997- 1998	1996- 1997	1994- 1995	1995- 1996	1991- 1992	2001- 2002	2000- 2001
<b>Tot CSR Level</b>	1993- 1994	1992- 1993	1998- 1999	1999- 2000	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1991- 1992	2001- 2002	2000- 2001

*Note:* Var = Variable, Div = Diversity, Emp = Employee Relations, Env = Environment, Pro = Product, Cgov = Corporate Governance, Tot CSR = Total CSR.

Interestingly, in Table 96, no significant differences among years are shown for any of the Level of CSR variables that were IVs in separate analyses for *ROA Annual Growth* as the DV, even though the variables of *Level of Diversity*, *Level of Employee Relations*, *Level of Environment*, *Level of Product*, *Level of Corporate Governance*, and *Level of Total CSR* all had significant differences and high power estimates in the within subjects analyses. It is possible that the conservative nature of Sidak and the low strengths of association (.028, .031, .027, .028, .026, and .027, respectively) for each variable contributed to no differences being found in the Sidak post hoc analysis.

Table 97 is a summary of the main effects analysis for the between groups factor of the seven Level of CSR variables. Significant differences between groups were only found for the variable of *Level of Community Relations*. Table 98 is a summary of these differences as assessed by the Sidak post hoc analysis.

Table 97. Summary of Between Groups Main Effects Analysis of Level of CSR Variables for *ROA Annual Growth*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	com_lvl	63.316	2	31.658	4.923	.008	.030	.805
	Error	2044.810	318	6.430				
<b>Level of Diversity</b>	div_lvl	28.635	2	14.317	2.189	.114	.014	.446
	Error	2079.491	318	6.539				
<b>Level of Employee Relations</b>	emp_lvl	.007	2	.003	.001	.999	.000	.050
	Error	2108.119	318	6.629				
<b>Level of Environment</b>	env_lvl	7.191	2	3.596	.544	.581	.003	.140
	Error	2100.935	318	6.607				
<b>Level of Product</b>	pro_lvl	3.505	2	1.752	.265	.768	.002	.092
	Error	2104.621	318	6.618				
<b>Level of Corporate Governance</b>	cgov_lvl	7.824	2	3.912	.592	.554	.004	.148
	Error	2100.302	318	6.605				
<b>Level of Total CSR</b>	CSR_lvl	14.472	2	7.236	1.099	.334	.007	.243
	Error	2093.653	318	6.584				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Product, CSRtot\_lvl = Level of Total CSR.

Table 98. Summary of Sidak Post Hoc Analysis of Main Effects of Level of CSR Variables for *ROA Annual Growth*

CSR Variable	Level of CSR Variable		
<b>Level of Community Relations</b>	High	Medium	Low

In Table 98, groups of *Level of Community Relations* are listed from left to right in descending order of the group means relative to *ROA Annual Growth*. The order of groups of *Level of Community Relations* corresponds with the *ROA Annual Growth*, in that companies with the High level of *Level of Community Relations* produced the highest annual growth rates while those with the Low level produced the lowest. However, the only significant difference between groups was between the High and Low.



**CFP Analysis with DV, *Sales Annual Growth*.** The variable of Sales Annual Growth was the dependent variable utilized for this set of analyses. The variable is a reflection of the annual increase or decrease of sales for companies. Eleven years of *Sales Annual Growth* were assessed with the seven Level of CSR variables as independent factors. Three groups (Low, Medium, High) were assigned to the Level of CSR variables, and the annual means for *Sales Annual Growth* for these three groups are presented in Table 99.

Table 99. Summary of Means for *Sales Annual Growth* for Level of CSR Variables from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Level of Community Relations</b>	1991-1992	120.86	225.74	-63.45
	1992-1993	227.66	121.60	-502.53
	1993-1994	544.63	578.30	282.55
	1994-1995	608.46	567.22	136.60
	1995-1996	256.83	-16.50	670.35
	1996-1997	535.42	630.03	1156.15
	1997-1998	315.84	165.56	345.34
	1998-1999	742.47	851.27	1919.06
	1999-2000	1000.84	1148.41	1562.03
	2000-2001	450.70	-590.96	404.87
	2001-2002	-739.51	-15.75	-651.53
<b>Level of Diversity</b>	1991-1992	16.19	138.84	171.00
	1992-1993	129.49	116.76	-207.73
	1993-1994	281.43	366.83	993.21
	1994-1995	311.90	569.78	609.95
	1995-1996	169.95	391.95	243.27
	1996-1997	335.21	667.29	1225.49
	1997-1998	184.86	654.44	-196.29
	1998-1999	463.53	887.52	2021.55
	1999-2000	684.72	991.18	2080.99
	2000-2001	304.83	815.62	-1033.25
	2001-2002	-142.37	-629.85	-925.15
<b>Level of Employee Relations</b>	1991-1992	27.62	108.48	250.78
	1992-1993	44.58	-26.09	120.31
	1993-1994	297.57	379.99	1023.70
	1994-1995	418.54	528.68	589.12
	1995-1996	309.20	331.14	158.87
	1996-1997	473.85	1012.99	687.45
	1997-1998	306.16	173.51	396.89
	1998-1999	295.80	1879.67	1266.37
	1999-2000	438.02	2002.64	1390.35
	2000-2001	68.36	828.18	-473.05
	2001-2002	-140.62	-1404.59	-129.57
<b>Level of Environment</b>	1991-1992	143.17	57.09	166.90
	1992-1993	-124.78	74.99	137.35

Table 99 Continued

CSR Variable	Year	Low	Medium	High
	1993-1994	1019.33	307.81	337.05
	1994-1995	1308.06	142.99	370.64
	1995-1996	178.24	253.27	441.37
	1996-1997	923.06	663.17	530.67
	1997-1998	-585.09	512.51	715.93
	1998-1999	2190.87	909.49	84.72
	1999-2000	2499.73	712.67	700.17
	2000-2001	776.75	-126.03	201.26
	2001-2002	-1179.16	-107.73	-765.34
<b>Level of Product</b>	1991-1992	-221.83	153.16	333.12
	1992-1993	-279.71	97.99	237.33
	1993-1994	507.09	271.55	924.85
	1994-1995	646.88	252.74	821.08
	1995-1996	331.31	276.62	239.62
	1996-1997	866.34	642.48	635.94
	1997-1998	-216.42	217.69	909.02
	1998-1999	1701.23	780.01	867.12
	1999-2000	1886.51	834.63	1099.20
	2000-2001	-43.34	509.62	-241.06
	2001-2002	-640.97	-841.59	150.33
<b>Level of Corporate Governance</b>	1991-1992	228.16	63.75	43.95
	1992-1993	-109.17	105.13	37.74
	1993-1994	910.57	389.85	64.33
	1994-1995	1209.57	257.84	65.02
	1995-1996	450.84	247.64	48.46
	1996-1997	1143.06	605.68	104.84
	1997-1998	-84.68	477.75	105.90
	1998-1999	2059.62	749.54	74.48
	1999-2000	2216.63	866.36	228.92
	2000-2001	-304.85	418.14	54.49
	2001-2002	-582.88	-578.81	-224.15
<b>Level of Total CSR</b>	1991-1992	-177.88	200.81	200.25
	1992-1993	-182.50	110.76	120.41
	1993-1994	491.85	355.21	772.77
	1994-1995	904.17	358.55	354.25
	1995-1996	458.02	215.86	233.19
	1996-1997	536.54	727.44	792.43
	1997-1998	-559.01	467.60	761.35
	1998-1999	1679.81	693.83	1047.25
	1999-2000	1585.64	1093.80	875.18
	2000-2001	800.14	140.35	-342.74
	2001-2002	-394.87	-919.26	57.44

The mixed model ANOVAs, including complete probing for post hoc follow-ups for the CFP Analyses of *Sales Annual Growth* with the Level of CSR classification variables, can be found in Appendix Q. Included in Table 100 is a summary of the main effects analysis

of the within subjects variable of *Year*. A review of the table reveals that there was a significant difference across years for the variables of *Level of Diversity*, *Level of Employee Relations*, and *Level of Environment*. Table 101 is a summary of the Sidak post hoc analysis of the differences across years for these variables, with the years listed in descending order of annual means per Level of CSR variable, and underline notation is used to connect non-significantly different years.

Table 100. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Sales Annual Growth Analysis*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations<sup>a</sup></b>	year	783790288.464	1	783790288.464	7.678	.006	.022	.789
	year*com_lvl	279199358.078	2	139599679.039	1.367	.256	.008	.294
	Error	35219089927.154	345	102084318.629				
<b>Level of Diversity</b>	year	917508120.072	1	917508120.072	9.056	.003	.026	.851
	year*div_lvl	543320706.126	2	271660353.063	2.681	.070	.015	.530
	Error	34954968579.106	345	101318749.505				
<b>Level of Employee Relations</b>	year	873756771.013	1	873756771.013	8.619	.004	.024	.833
	year*emp_lvl	522195958.273	2	261097979.136	2.575	.078	.015	.513
	Error	34976093326.959	345	101379980.658				
<b>Level of Environment</b>	year	897074799.961	1	897074799.961	8.883	.003	.025	.844
	year*env_lvl	656622019.419	2	328311009.710	3.251	.040	.018	.617
	Error	34841667265.813	345	100990339.901				
<b>Level of Product<sup>b</sup></b>	year	787467891.337	1	787467891.337	7.720	.006	.022	.791
	year*pro_lvl	305281184.544	2	152640592.272	1.496	.225	.009	.318
	Error	35193008100.689	345	102008719.132				
<b>Level of Corporate Governance<sup>c</sup></b>	year	435316066.619	1	435316066.619	4.277	.039	.012	.541
	year*cgov_lvl	380438330.073	2	190219165.036	1.869	.156	.011	.388
	Error	35117850955.159	345	101790872.334				
<b>Level of Total CSR<sup>d</sup></b>	year	719271276.181	1	719271276.181	7.053	.008	.020	.754
	year*CSR_lvl	315669080.301	2	157834540.151	1.548	.214	.009	.328
	Error	35182620204.931	345	101978609.290				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRTot\_lvl = Level of Total CSR.

<sup>a, b, c, d</sup> The significant difference of year was not interpreted because of a lack of either a medium effect size or high power.

Table 101. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Sales Annual Growth Analysis*

CSR Var	Year										
<b>Div Level</b>	1999-2000	1998-1999	1996-1997	1993-1994	1994-1995	1995-1996	1997-1998	1991-1992	2000-2001	1992-1993	2001-2002
<b>Emp Level</b>	1999-2000	1998-1999	1996-1997	1993-1994	1994-1995	1997-1998	1995-1996	2000-2001	1991-1992	1992-1993	2001-2002
<b>Env Level</b>	1999-2000	1998-1999	1996-1997	1994-1995	1993-1994	1995-1996	2000-2001	1997-1998	1991-1992	1992-1993	2001-2002

Note: Var = Variable, Div = Diversity, Emp = Employee Relations, Env = Environment.

As presented in Table 101, no significant differences among years were found in the Sidak post hoc analysis for the IVs of *Level of Diversity*, *Level of Employee Relations*, and *Level of Environment*, for the DV of *Sales Annual Growth*. The lack of differences occurred despite these variables having a significant difference and high power estimate in the within subjects analysis. Low strengths of association for each variable (.026, .024, and .025, respectively), along with Sidak being a conservative measure, likely explain why no differences were found in the post hoc analysis. Table 102 is a summary of the between groups analysis for the seven Level of CSR variables. A look at the table reveals a significant difference between groups for only the variable of *Level of Corporate Governance*; however, the criteria for having either a medium effect size or high power were not met. Thus, no post hoc analysis was conducted.

Table 102. Summary of Between Groups Main Effects Analyses of Level of CSR Variables for *Sales Annual Growth*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	com_lvl	10377061.066	2	5188530.533	.288	.750	.002	.096
	Error	6216887242.381	345	18019963.021				
<b>Level of Diversity</b>	div_lvl	35130926.503	2	17565463.252	.979	.377	.006	.220
	Error	6192133376.943	345	17948212.687				

Table 102 Continued

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Employee Relations</b>	emp_lvl	73864567.216	2	36932283.608	2.071	.128	.012	.425
	Error	6153399736.230	345	17835941.264				
<b>Level of Environment</b>	env_lvl	92512289.939	2	46256144.969	2.601	.076	.015	.517
	Error	6134752013.508	345	17781889.894				
<b>Level of Product</b>	pro_lvl	42089232.480	2	21044616.240	1.174	.310	.007	.257
	Error	6185175070.966	345	17928043.684				
<b>Level of Corporate Governance</b>	cgov_lvl	125351621.616	2	62675810.808	3.544	.030	.020	.657
	Error	6101912681.830	345	17686703.426				
<b>Level of Total CSR</b>	CSR_lvl	19565011.764	2	9782505.882	.544	.581	.003	.140
	Error	6207699291.682	345	17993331.280				

Note: comtot\_lvl = Level of Community Relations, divtot\_lvl = Level of Diversity, emptot\_lvl = Level of Employee Relations, envtot\_lvl = Level of Environment, protot\_lvl = Level of Product, cgovtot\_lvl = Level of Corporate Governance, CSRTot\_lvl = Level of Total CSR.

### CFP Analyses with Criteria-based Significant Interaction Effects

**CFP Analysis with DV, *Market Capitalization*.** The variable of *Market*

*Capitalization* was the dependent variable utilized for this set of analyses with the Level of CSR variables as independents. The Level of CSR variables were categorized into three groups (Low, Medium, High), and the means for *Market Capitalization* for each of these groups, listed by year, are contained in Table 103.

Table 103. Summary of Means for *Market Capitalization* for Level of CSR Variables from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Level of Community Relations</b>	1991	5603.21	8159.25	12316.07
	1992	5924.52	8613.73	11869.91
	1993	6348.76	9190.88	11700.67
	1994	6135.95	8732.14	11619.06
	1995	7643.73	11736.59	15251.14
	1996	9050.32	12168.03	18775.43
	1997	11404.52	16057.52	25731.73
	1998	13748.72	20718.18	31274.28
	1999	17911.88	24170.62	32487.07
	2000	17242.84	23381.82	34955.76
	2001	15774.99	18116.94	32342.69
	2002	11616.84	14534.99	25498.98

Table 103 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Level of Diversity</b>	1991	3301.15	5674.01	17024.18
	1992	3470.64	5949.62	17075.42
	1993	3782.45	6156.55	17632.63
	1994	3530.39	5859.58	17483.51
	1995	4335.09	7533.49	23015.28
	1996	4803.17	9059.52	26387.23
	1997	5951.64	11500.57	35797.07
	1998	6228.89	14998.17	44121.95
	1999	6790.01	19062.22	49936.94
	2000	7488.97	19239.01	48712.29
	2001	7474.12	17281.46	41345.06
	2002	5956.14	13050.37	31979.27
<b>Level of Employee Relations</b>	1991	5243.00	8691.67	11120.90
	1992	5514.12	8805.47	11233.85
	1993	5708.36	9264.29	11646.72
	1994	5493.51	8700.93	11773.26
	1995	7028.00	11343.83	15272.61
	1996	8352.50	12763.81	17781.26
	1997	10615.41	17845.45	22579.82
	1998	11872.11	22756.97	28955.22
	1999	12275.88	28380.49	34703.82
	2000	13419.80	28361.36	32578.91
	2001	11705.10	25350.86	28586.42
	2002	9562.57	18417.41	22448.30
<b>Level of Environment</b>	1991	14942.53	4654.78	6629.58
	1992	14625.09	4968.01	7059.34
	1993	15303.74	5269.43	7094.81
	1994	14988.82	4885.64	7200.79
	1995	18941.70	6439.78	9540.44
	1996	21381.12	7550.87	11417.56
	1997	27790.20	10397.84	14334.24
	1998	34279.69	13343.16	16455.79
	1999	39466.46	16076.41	19107.56
	2000	39885.54	16582.67	17663.08
	2001	35361.62	14561.10	15578.33
	2002	26366.76	11178.91	12923.86
<b>Level of Product</b>	1991	12833.86	4636.67	8890.89
	1992	12757.56	4813.87	9338.16
	1993	13316.98	5084.55	9563.85
	1994	12641.45	4787.01	9839.03
	1995	16613.30	6062.74	12744.35
	1996	19086.74	6883.40	15172.34
	1997	25840.18	8718.73	19824.57
	1998	31945.68	9839.95	26002.32
	1999	34127.58	11835.63	33064.13
	2000	38160.15	12471.60	27916.69
	2001	33924.19	10904.21	24605.47
	2002	25565.07	8704.13	18868.93

Table 103 Continued

CSR Variable	Year	Low	Medium	High
<b>Level of Corporate Governance</b>	1991	16057.35	5159.23	1917.15
	1992	16142.44	5393.66	2054.36
	1993	17017.57	5577.25	1880.18
	1994	17099.58	5165.43	1781.09
	1995	22735.25	6451.91	2130.21
	1996	26941.21	7260.45	2153.64
	1997	36031.74	9253.03	2867.46
	1998	45142.08	11167.41	2807.70
	1999	54003.94	12694.15	2801.15
	2000	54022.60	12680.17	2829.74
	2001	45138.65	12224.46	2871.38
	2002	33197.93	10005.08	2652.96
<b>Level of Total CSR</b>	1991	10061.81	6067.03	8711.09
	1992	10046.93	6100.01	9383.09
	1993	10848.44	6315.77	9476.28
	1994	10528.73	5942.11	9556.79
	1994	13250.32	7971.70	12179.87
	1996	15405.58	9125.12	14249.63
	1997	19689.64	12489.83	18269.97
	1998	23223.63	15124.07	23946.90
	1999	28326.86	15835.99	30660.82
	2000	30470.74	17595.93	25123.69
	2001	26604.38	15133.77	23230.47
	2002	19713.53	12218.04	17527.79

The complete mixed model ANOVAs, including post hoc follow-ups, for each of the Level of CSR variables with the dependent variable of *Market Capitalization* can be found in Appendix R. For this set of analyses for *Market Capitalization*, the criteria-based significant interaction effects were present for the variables of *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* (Table 104). Thus, the other four Level of CSR variables without the criteria-based significant interaction effects were analyzed at the main effects level.

Table 104. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Market Capitalization* Analysis for *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Diversity</b>	year	1.560E+11	1	1.560E+11	49.136	.000	.125	1.000
	year*divlevel	7.217E+10	2	3.608E+10	11.367	.000	.062	.993
	Error	1.089E+12	343	3.175E+9				

Table 104 Continued

<b>CSR Variable</b>	<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>	<b>h<sub>p</sub><sup>2</sup></b>	<b>Power</b>
<b>Level of Product</b>	year	1.644E+11	1	1.644E+11	50.230	.000	.128	1.000
	year*prolevel	3.838E+10	2	1.919E+10	5.862	.003	.033	.872
	Error	1.123E+12	343	3.273E+9				
<b>Level of Corporate Governance</b>	year	8.754E+10	1	8.754E+10	28.632	.000	.077	1.000
	year*cgovlevel	1.124E+11	2	5.619E+10	18.377	.000	.097	1.000
	Error	1.049E+12	343	3.057E+9				

Note: divlevel = Level of Diversity, prolevel = Level of Product, cgovlevel = Level of Corporate Governance.

Table 105. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Market Capitalization Analysis*

<b>CSR Variable</b>	<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>	<b>h<sub>p</sub><sup>2</sup></b>	<b>Power</b>
<b>Level of Community Relations</b>	year	1.407E+11	1	1.407E+11	42.138	.000	.109	1.000
	year*comlevel	1.581E+10	2	7.906E+9	2.368	.095	.014	.477
	Error	1.145E+12	343	3.339E+9				
<b>Level of Employee Relations</b>	year	1.527E+11	1	1.527E+11	46.198	.000	.119	1.000
	year*emplevel	2.739E+10	2	1.369E+10	4.143	.017	.024	.730
	Error	1.134E+12	343	3.305E+9				
<b>Level of Environment</b>	year	1.378E+11	1	1.37E+11	41.482	.000	.108	1.000
	year*envlevel	2.140E+10	2	1.070E+10	3.221	.041	.018	.613
	Error	1.140E+12	343	3.323E+9				
<b>Level of Total CSR</b>	year	1.416E+11	1	1.416E+11	42.248	.000	.110	1.000
	year*CSRlevel	1.159E+10	2	5.793E+9	1.729	.179	.010	.362
	Error	1.149E+12	343	3.351E+9				

Note: comlevel = Level of Community Relations, emplevel = Level of Employee Relations, envlevel = Level of Environment, CSRlevel = Level of Total CSR.

Table 105 is a summary of the main effects analysis for the within subjects variable of *Year*, for the Level of CSR variables that did not result in the criteria-based significant interaction effects. Reviewing the table, one can see that there were significant differences across years for all four of these CSR variables (*Level of Community Relations*, *Level of Employee Relations*, *Level of Environment*, and *Level of Total CSR*). The trend for these four variables was linear (See the Tests of Within-Subjects Contrasts tables in Appendix R). Refer to Table 106 for the summary of the Sidak post hoc analysis that determined where the differences occurred through the years. Note that in Table 106 the years are listed in



descending order of annual means per Level of CSR variable, and years that are not significantly different are marked with underline notation.

Table 106. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Market Capitalization* Analysis

CSR Var	Year											
Com Level	2000	1999	2001	1998	1997	2002	1996	1995	1993	1994	1992	1991
Emp Level	1999	2000	2001	1998	1997	2002	1996	1995	1993	1994	1992	1991
Env Level	1999	2000	2001	1998	1997	2002	1996	1995	1993	1994	1992	1991
Tot CSR Level	1999	2000	2001	1998	1997	2002	1996	1995	1993	1994	1992	1991

Note: Var = Variable, Com = Community Relations, Emp = Employee Relations, Env = Environment, Tot CSR = Total CSR.

Table 106 is a summary of the differences among years as assessed by the Sidak post hoc analysis for the IVs of *Level of Community Relations*, *Level of Employee Relations*, *Level of Environment*, and *Level of Total CSR*, for the analyses with the DV of *Market Capitalization*. For all four variables, organizations in later years generally outperformed that observed in earlier years. With the exception of *Level of Community Relations* having the year of 2000 with the highest scores, the year with the highest scores for the other three variables was 1999, while 1991 was positioned as having the lowest scores for all four. In addition, the year of 2002 is uniquely positioned in the center of the time frame for all four of the Level of CSR variables. The pattern of differences among years is also similar for the four variables, with the year of 1995 being the only significantly different year in the group.

Table 107 is a summary of the between groups main effects analysis of those four Level of CSR variables with non-significant interaction effects. A look at Table 107 reveals that there were significant differences between groups for the variables of *Level of Community Relations*, *Level of Employee Relations*, and *Level of Environment*. A Sidak post hoc analysis was performed on the latter three variables to determine the nature of the differences, which are shown in Table 108.

Table 107. Summary of Between Groups Main Effects Analysis for *Market Capitalization*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	comlevel	8.309E+10	2	41544166025.274	4.799	.009	.027	.795
	Error	2.969E+12	343	8657032166.679				
<b>Level of Employee Relations</b>	emplevel	1.022E+11	2	51102931539.387	5.941	.003	.033	.877
	Error	2.950E+12	343	8601295924.614				
<b>Level of Environment</b>	envlevel	1.755E+11	2	87772684984.340	10.465	.000	.058	.988
	Error	2.877E+12	343	8387478120.271				
<b>Level of Total CSR</b>	CSRlevel	4.731E+10	2	23655987733.847	2.700	.069	.015	.533
	Error	3.005E+12	343	8761336413.276				

Note: comlevel = Level of Community Relations, emplevel = Level of Employee Relations, envlevel = Level of Environment, CSRlevel = Level of Total CSR.

Table 108. Summary of Sidak Post Hoc Analysis of Main Effects of Level of CSR Variables for *Market Capitalization*

CSR Variable	Level of CSR Variable		
<b>Level of Community Relations</b>	High	Medium	Low
<b>Level of Employee Relations</b>	High	Medium	Low
<b>Level of Environment</b>	Low	High	Medium

Table 108 is a summary of the Sidak post hoc analysis for the three variables that resulted in between groups significance. The groups of the Level of CSR variables are listed

in descending order of the group means for *Market Capitalization*. As shown, the levels of performance for *Level of Community Relations* and *Level of Employee Relations* correspond with the level of *Market Capitalization*, as organizations with the High level for both variables produced the highest *Market Capitalization* and those with the Low level for both variables produced the lowest *Market Capitalization*. However, for both *Level of Community Relations* and *Level of Employee Relations*, organizations with the High level were only significantly different than those with the Low level. The order of performance for *Level of Environment* was much different, in that organizations with the Low level produced the highest *Market Capitalization*, with those with the Medium and High levels following. Organizations with the Low level were found to be significantly different from those with both the Medium and High levels for *Level of Environment*.

The three Level of CSR variables that resulted in the criteria-based significant interaction effects for the set of analyses with the DV of *Market Capitalization* were *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance*; therefore, the analysis for these variables was carried to the simple main effects level. Included in Tables 109-112 are summaries of the simple main effects analysis for the between groups portion, within subjects portion, and their respective post hoc analyses.

A review of Table 109 reveals a significant difference across time or years for all three levels (Low, Medium, High) of performance for *Level of Product*, for the Medium and High levels for *Level of Diversity*, and the Low and Medium levels for *Level of Corporate Governance*. A linear trend was present for the Low *Level of Product* and *Level of Corporate Governance*, and the High *Level of Diversity* and *Level of Product* (See the Tests of Within-Subjects Contrasts tables in Appendix R).

Included in Table 110 is a summary of the Sidak post hoc analysis that represents where the differences across years occurred at the different levels of *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* for *Market Capitalization*. Years are listed in descending order of means for *Market Capitalization*, and are categorized by the levels of performance for each Level of CSR variable in the analysis.

Table 109. Summary of Simple Main Effects Analysis of Year at *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* for *Market Capitalization*

CSR Variable	Level of Total Assets	F	df	Error df	p	$h_p^2$	Power
<b>Level of Diversity</b>	<b>Low</b>	.951	11	333	.492	.030	.531
	<b>Medium</b>	2.382	11	333	.008	.073	.953
	<b>High</b>	13.296	11	333	.000	.305	1.000
<b>Level of Product</b>	<b>Low</b>	7.562	11	333	.000	.200	1.000
	<b>Medium</b>	1.855	11	333	.044	.058	.874
	<b>High</b>	4.176	11	333	.000	.121	.999
<b>Level of Corporate Governance</b>	<b>Low</b>	13.463	11	333	.000	.308	1.000
	<b>Medium</b>	2.857	11	333	.001	.086	.982
	<b>High</b>	.107	11	333	1.000	.004	.085

Table 110. Summary of Sidak Post Hoc Analysis of Simple Main Effect of Year at *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* for *Market Capitalization*

<i>Level of Diversity</i>												
Level of CSR	Year											
<b>Med</b>	2000	1999	2001	1998	2002	1997	1996	1995	1993	1992	1994	1991
<b>High</b>	1999	2000	1998	2001	1997	2002	1996	1995	1993	1994	1992	1991
<i>Level of Product</i>												
Level of CSR	Year											
<b>Low</b>	2000	1999	2001	1998	1997	2002	1996	1995	1993	1991	1992	1994

Table 110 Continued

Level of CSR	Year											
	2000	1999	2001	1998	1997	2002	1996	1995	1993	1992	1994	1991
<b>Med</b>												
<b>High</b>	1999	2000	1998	2001	1997	2002	1996	1995	1994	1993	1992	1991
<i>Level of Corporate Governance</i>												
Level of CSR	Year											
	2000	1999	1998	2001	1997	2002	1996	1995	1994	1993	1992	1991
<b>Low</b>												
<b>Med</b>	1999	2000	2001	1998	2002	1997	1996	1995	1993	1992	1994	1991

Note: Med = Medium.

As revealed in Table 110, no significant differences were found for organizations with the Medium levels of all three variables, even though these variables had significant differences and high power estimates in the simple main effects analysis. Perhaps the conservative nature of Sidak and the medium strengths of association (.073, .058, and .086, respectively) attributed to the lack of differences found. Interestingly, organizations with the Low level of *Level of Product* and *Level of Corporate Governance* and those with the High level of *Level of Diversity* shared similar patterns of comparisons among years. Specifically, organizations in later years typically outperformed those in earlier years, with the deviation being 2002 in the center of the time frame. In terms of significant differences among years, the four years with the lowest scores were found to be different from the remainder of years with higher scores, although the year of 1995 was significantly different from all other years for the Low level of *Level of Corporate Governance*. For the High level of *Level of Product*, the significant differences occurred among the year of 1991 with the lowest scores and the other years with higher scores, with the exception of 2001 and 2002.

Table 111 is a summary of the simple main effects analysis for the between groups factors at *Year*, for the Level of CSR variables of *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance*. In reviewing Table 111, one can see that there were significant differences between groups for every year (1991-2002) for all three CSR variables. Refer to Table 112 for a summary of the Sidak post hoc analysis that depicts the nature of the differences per year by variable.

Table 111. Summary of Simple Main Effects Analysis of *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* at *Year* for *Market Capitalization*

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Diversity</b>	1991	Bw grps	10019289298.352	2	5009644649.176	32.198	.000	.164	1.000
	1992	Bw grps	9790687246.135	2	4895343623.068	33.239	.000	.168	1.000
	1993	Bw grps	10321557807.727	2	5160778903.864	34.475	.000	.171	1.000
	1994	Bw grps	10516030846.826	2	5258015423.413	35.089	.000	.174	1.000
	1995	Bw grps	18779297513.339	2	9389648756.670	35.537	.000	.175	1.000
	1996	Bw grps	24729979971.179	2	12364989985.590	31.101	.000	.155	1.000
	1997	Bw grps	47940541311.938	2	23970270655.969	33.730	.000	.165	1.000
	1998	Bw grps	75120894780.429	2	37560447390.215	27.910	.000	.141	1.000
	1999	Bw grps	95038010519.294	2	47519005259.647	18.950	.000	.099	1.000
	2000	Bw grps	86858001676.098	2	43429000838.049	19.144	.000	.100	1.000
	2001	Bw grps	58560687637.124	2	29280343818.562	16.887	.000	.089	1.000
	2002	Bw grps	35399199630.906	2	17699599815.453	19.302	.000	.099	1.000
<b>Level of Product</b>	1991	Bw grps	4106682343.885	2	2053341171.943	11.891	.000	.063	.993
	1992	Bw grps	3925656912.414	2	1962828456.207	11.952	.000	.064	.994
	1993	Bw grps	4057336304.103	2	2028668152.052	12.090	.000	.066	.995
	1994	Bw grps	3914069763.112	2	1957034881.556	11.585	.000	.063	.993
	1995	Bw grps	6883418832.853	2	3441709416.427	11.530	.000	.064	.994
	1996	Bw grps	9577719146.455	2	4788859573.228	10.856	.000	.060	.990
	1997	Bw grps	18307424697.135	2	9153712348.568	11.502	.000	.063	.994
	1998	Bw grps	32816941388.349	2	16408470694.175	11.180	.000	.061	.992
	1999	Bw grps	41521112944.270	2	20760556472.135	7.801	.000	.042	.945
	2000	Bw grps	40045396311.509	2	20022698155.755	8.333	.000	.047	.963
	2001	Bw grps	31905849093.262	2	15952924546.631	8.813	.000	.049	.972
	2002	Bw grps	17334976699.244	2	8667488349.622	8.944	.000	.050	.973
<b>Level of Corporate Governance</b>	1991	Bw grps	9467248162.851	2	4733624081.426	30.115	.000	.144	1.000
	1992	Bw grps	9238261646.349	2	4619130823.175	31.027	.000	.149	1.000
	1993	Bw grps	10345271576.262	2	5172635788.131	34.570	.000	.165	1.000
	1994	Bw grps	11018644281.279	2	5509322140.640	37.126	.000	.175	1.000
	1995	Bw grps	20286329474.312	2	10143164737.156	39.031	.000	.182	1.000
	1996	Bw grps	29515626971.252	2	14757813485.626	38.449	.000	.180	1.000
	1997	Bw grps	53430253410.567	2	26715126705.284	38.446	.000	.182	1.000
	1998	Bw grps	86639471967.280	2	43319735983.640	33.003	.000	.160	1.000
	1999	Bw grps	127212199876.861	2	63606099938.431	26.336	.000	.132	1.000
	2000	Bw grps	127978813089.335	2	63989406544.668	29.752	.000	.146	1.000
	2001	Bw grps	83421984977.213	2	41710992488.607	25.088	.000	.125	1.000
	2002	Bw grps	42319493144.577	2	21159746572.289	23.588	.000	.119	1.000

Note: Bw grps = Between groups.

Table 112. Summary of Sidak Post Hoc Analysis of Simple Main Effects of *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance* for *Market Capitalization*

CSR Variable	Year	Level of CSR Variable		
Level of Diversity	1991	High	Medium	Low
	1992	High	Medium	Low
	1993	High	Medium	Low
	1994	High	Medium	Low
	1995	High	Medium	Low
	1996	High	Medium	Low
	1997	High	Medium	Low
	1998	High	Medium	Low
	1999	High	Medium	Low
	2000	High	Medium	Low
	2001	High	Medium	Low
	2002	High	Medium	Low
Level of Product	1991	Low	High	Medium
	1992	Low	High	Medium
	1993	Low	High	Medium
	1994	Low	High	Medium
	1995	Low	High	Medium

Table 112 Continued

<b>CSR Variable</b>	<b>Year</b>	<b>Level of CSR Variable</b>	<b>CSR Variable</b>	<b>Year</b>
<b>Level of Corporate Governance</b>	1996	Low	High	Medium
	1997	Low	High	Medium
	1998	Low	High	Medium
	1999	Low	High	Medium
	2000	Low	High	Medium
	2001	Low	High	Medium
	2002	Low	High	Medium
	1991	Low	Medium	High
	1992	Low	Medium	High
	1993	Low	Medium	High
	1994	Low	Medium	High
	1995	Low	Medium	High
	1996	Low	Medium	High
	1997	Low	Medium	High
	1998	Low	Medium	High
	1999	Low	Medium	High
	2000	Low	Medium	High



Table 112 Continued

CSR Variable	Year	Level of CSR Variable	CSR Variable	Year
Level of Corporate Governance	2001	Low	Medium	High
	2002	Low	Medium	High

Included in Table 112 are the groups for *Level of Diversity*, *Level of Product*, and *Level of Corporate Governance*, listed in descending order of the group means for *Market Capitalization* and categorized by *Year*. The patterns of the order of performance are consistent by variable, but not across variables. For example, the performance for *Level Diversity* ranged in descending order of *Market Capitalization* values from High to Low for every year, which indicated that organizations with a High level of *Level of Diversity* consistently produced the highest *Market Capitalization* and were significantly different than both those with Medium and Low levels. The same is not true for *Level of Product* or *Level of Corporate Governance*, since organizations with the Low level of performance for both variables created the highest *Market Capitalization* in every year. Interestingly, for *Level of Product*, organizations with the Medium level produced the lowest *Market Capitalization*. Also, organizations with the Medium level were in the only significantly different category, since organizations with the Low and High levels were not found to be significantly different from each other. For *Level of Corporate Governance*, organizations with the Low level produced the highest *Market Capitalization*, which were significantly different than organizations with both the Medium and High levels.

**CFP Analysis with DV, *Market Capitalization Annual Growth*.** The variable of *Market Capitalization Annual Growth* was the dependent variable utilized for this set of

analyses with the Level of CSR variables as independents. Due to the lag year calculation necessary for this variable, only 11 years of growth were analyzed. The Level of CSR variables were assigned three groups (Low, Medium, High) to categorize their performance. The means for *Market Capitalization Annual Growth* for each of these groups, listed annually, are contained in Table 113.

Table 113. Summary of Means for *Market Capitalization Annual Growth* for Level of CSR Variables from 1991-2002

CSR Variable	Year	Low	Medium	High
<b>Level of Community Relations</b>	1991-1992	321.31	454.49	-446.16
	1992-1993	424.24	577.14	-169.24
	1993-1994	-212.81	-458.73	-81.62
	1994-1995	1507.78	3004.45	3632.09
	1995-1996	1406.59	431.45	3524.29
	1996-1997	2354.20	3889.49	6956.29
	1997-1998	2344.20	4660.66	5542.56
	1998-1999	4163.16	3452.44	1212.79
	1999-2000	-669.05	-788.80	2468.69
	2000-2001	-1467.85	-5264.88	-2613.07
	2001-2002	-4158.15	-3581.95	-6843.72
<b>Level of Diversity</b>	1991-1992	169.49	275.61	51.25
	1992-1993	311.82	206.93	557.21
	1993-1994	-252.06	-296.97	-149.11
	1994-1995	804.69	1673.91	5531.76
	1995-1996	468.08	1526.03	3371.96
	1996-1997	1148.47	2441.05	9409.84
	1997-1998	277.25	3497.60	8324.88
	1998-1999	561.12	4064.05	5814.99
	1999-2000	698.96	176.80	-1224.65
	2000-2001	-14.85	-1957.55	-7367.23
	2001-2002	-1517.97	-4231.10	-9365.79
<b>Level of Employee Relations</b>	1991-1992	271.12	113.80	112.94
	1992-1993	194.24	458.83	412.87
	1993-1994	-214.84	-563.36	126.54
	1994-1995	1534.49	2642.90	3499.35
	1995-1996	1324.50	1419.99	2508.65
	1996-1997	2262.91	5081.63	4798.56
	1997-1998	1256.70	4911.52	6375.41
	1998-1999	403.77	5623.53	5748.59
	1999-2000	1143.92	-19.13	-2124.91
	2000-2001	-1714.69	-3010.51	-3992.48
	2001-2002	-2142.53	-6933.44	-6138.13
<b>Level of Environment</b>	1991-1992	-317.44	313.23	429.77
	1992-1993	678.65	301.42	35.47
	1993-1994	-314.92	-383.79	105.98
	1994-1995	3952.88	1554.14	2339.66

Table 113 Continued

CSR Variable	Year	Low	Medium	High
	1995-1996	2439.42	1111.10	1877.11
	1996-1997	6409.08	2846.96	2916.68
	1997-1998	6489.49	2945.33	2121.56
	1998-1999	5186.77	2733.25	2651.77
	1999-2000	419.07	506.26	-1444.48
	2000-2001	-4523.92	-2021.57	-2084.76
	2001-2002	-8994.85	-3382.19	-2654.47
<b>Level of Product</b>	1991-1992	-76.30	177.21	447.27
	1992-1993	559.42	270.68	225.69
	1993-1994	-675.53	-297.54	275.18
	1994-1995	3971.85	1275.73	2905.32
	1995-1996	2473.45	820.66	2427.99
	1996-1997	6753.44	1835.32	4652.23
	1997-1998	6105.50	1121.22	6177.75
	1998-1999	2181.90	1995.68	7061.80
	1999-2000	4032.57	635.97	-5147.44
	2000-2001	-4235.96	-1567.39	-3311.21
	2001-2002	-8359.13	-2200.08	-5736.54
<b>Level of Corporate Governance</b>	1991-1992	85.10	234.43	137.21
	1992-1993	875.13	183.59	-174.19
	1993-1994	82.01	-411.82	-99.08
	1994-1995	5635.67	1286.48	349.12
	1995-1996	4205.97	808.54	23.43
	1996-1997	9090.53	1992.58	713.82
	1997-1998	9110.34	1914.38	-59.77
	1998-1999	8861.86	1526.74	-6.55
	1999-2000	18.66	-13.98	28.60
	2000-2001	-8883.95	-455.71	41.63
	2001-2002	-11940.72	-2219.39	-218.42
<b>Level of Total CSR</b>	1991-1992	-14.87	32.99	672.00
	1992-1993	801.51	215.75	93.18
	1993-1994	-319.71	-373.66	80.51
	1994-1995	2721.59	2029.59	2623.07
	1995-1996	2155.26	1153.42	2069.76
	1996-1997	4284.06	3364.71	4020.34
	1997-1998	3533.99	2634.24	5676.93
	1998-1999	5103.23	711.92	6713.92
	1999-2000	2143.88	1759.94	-5537.12
	2000-2001	-3866.36	-2462.16	-1893.22
	2001-2002	-6890.86	-2915.73	-5702.68

The complete mixed model ANOVAs for this set of analyses with the Level of CSR variables as independents and *Market Capitalization Annual Growth* as the dependent variable, including post hoc follow-ups, are included in Appendix S. For this set of analyses, two of the seven Level of CSR variables – *Level of Diversity* and *Level of Corporate*

*Governance* (Table 114) resulted in the criteria-based significant interaction effects and were analyzed at the simple main effects level. Thus, the other five Level of CSR variables (*Level of Community Relations, Level of Employee Relations, Level of Environment, Level of Product, and Level of Total CSR*) were analyzed at the main effects level.

Table 114. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Market Capitalization Annual Growth Analysis for Level of Diversity and Level of Corporate Governance*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Diversity</b>	year	2.871E+10	1	2.871E+10	21.123	.000	.058	.996
	year*divevel	1.561E+10	2	7.807E+9	5.744	.004	.032	.865
	Error	4.662E+11	343	1.359E+9				
<b>Level of Corporate Governance</b>	year	1.661E+10	1	1.661E+10	12.462	.000	.035	.941
	year*cgovlevel	2.470E+10	2	1.235E+10	9.267	.000	.051	.977
	Error	4.571E+11	343	1.333E+9				

Note: divevel = Level of Diversity, cgovlevel = Level of Corporate Governance.

Table 115. Summary of Within Subjects Effects for *Year* and Level of CSR Variables Using Lower Bound Estimates in *Market Capitalization Annual Growth Analysis*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations</b>	year	2.486E+10	1	2.486E+10	17.872	.000	.050	.988
	year*comlevel	4.763E+9	2	2.381E+9	1.712	.182	.010	.359
	Error	4.771E+11	343	1.391E+9				
<b>Level of Employee Relations</b>	year	2.814E+10	1	2.814E+10	20.341	.000	.056	.994
	year*emplevel	7.294E+9	2	3.647E+9	2.636	.073	.015	.523
	Error	4.745E+11	343	1.383E+9				
<b>Level of Environment</b>	year	2.537E+10	1	2.537E+10	18.270	.000	.051	.989
	year*envlevel	5.465E+9	2	2.733E+9	1.968	.141	.011	.406
	Error	4.764E+11	343	1.389E+9				
<b>Level of Product</b>	year	2.996E+10	1	2.996E+10	21.880	.000	.060	.997
	year*prolevel	1.214E+10	2	6.071E+9	4.434	.013	.025	.760
	Error	4.697E+11	343	1.369E+9				
<b>Level of Total CSR</b>	year	2.689E+10	1	2.689E+10	19.466	.000	.054	.993
	year*CSRlevel	8.016E+9	2	4.008E+9	2.901	.056	.017	.565
	Error	4.738E+11	343	1.381E+9				

Note: comlevel = Level of Community Relations, emplevel = Level of Employee Relations, envlevel = Level of Environment, prolevel = Level of Product, CSRlevel = Level of Total CSR.

Table 115 is a summary of the main effects analysis for the within subjects variable of *Year*, for the Level of CSR variables that did not result in the criteria-based significant interaction effects. Reviewing the table, one can see that there were significant differences across years for all of the Level of CSR variables (*Level of Community Relations*, *Level of Employee Relations*, *Level of Environment*, *Level of Product*, and *Level of Total CSR*). A quadratic trend was present for the variable of *Level of Product* (See the Tests of Within-Subjects Contrasts tables in Appendix S). Refer to Table 116 for the summary of the Sidak post hoc analysis that determined where the differences occurred through the years. In Table 116, the years are listed in descending order of their annual means per Level of CSR variable.

Table 116. Summary of Sidak Post Hoc Analysis for Main Effect of *Year* in *Market Capitalization Annual Growth Analysis*

CSR Var	Year										
<b>Com Level</b>	1996-1997	1997-1998	1998-1999	1994-1995	1995-1996	1999-2000	1992-1993	1991-1992	1993-1994	2000-2001	2001-2002
<b>Emp Level</b>	1997-1998	1996-1997	1998-1999	1994-1995	1995-1996	1992-1993	1991-1992	1993-1994	1999-2000	2000-2001	2001-2002
<b>Env Level</b>	1996-1997	1997-1998	1998-1999	1994-1995	1995-1996	1992-1993	1991-1992	1999-2000	1993-1994	2000-2001	2001-2002
<b>Pro Level</b>	1997-1998	1996-1997	1998-1999	1994-1995	1995-1996	1992-1993	1991-1992	1999-2000	1993-1994	2000-2001	2001-2002
<b>Tot CSR Level</b>	1998-1999	1997-1998	1996-1997	1994-1995	1995-1996	1992-1993	1991-1992	1993-1994	1999-2000	2000-2001	2001-2002

Note: Var = Variable, Com = Community Relations, Emp = Employee Relations, Env = Environment, Pro = Product, Tot CSR = Total CSR.

In Table 116, no significant differences were found by the Sidak post hoc analysis for the variables of *Level of Community Relations*, *Level of Employee Relations*, *Level of*

*Environment*, or *Level of Total CSR*, even though these variables had a significant difference and high power estimate in the within subjects main effects analysis. The medium strengths of association for each variable (.050, .056, .051, and .054, respectively), along with the conservative nature of Sidak could partially explain why no differences were found. For *Level of Product*, the high scoring period was the year between 1997 and 1998, while the low was between 2001 and 2002. Significant differences existed between the low scoring range of 2001-2002 and five out of the first half of top scoring ranges, excluding 1998-1999.

Table 117 is a summary of the between groups main effects analysis for the latter five Level of CSR variables. A review of the table reveals a significant difference between groups for the variable of *Level of Product*. A Sidak post hoc analysis was conducted for this variable to determine the nature of the differences between groups. A summary of the results is included in Table 118.

Table 117. Summary of Between Groups Main Effects Analysis of Level of CSR Variables for *Market Capitalization Annual Growth*

CSR Variable	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Community Relations<sup>a</sup></b>	comlevel	271457369.515	2	1.357E+9	3.159	.044	.018	.604
	Error	14736662127.908	343	42964029.527				
<b>Level of Employee Relations<sup>b</sup></b>	emplevel	299105774.323	2	1.496E+9	3.487	.032	.020	.650
	Error	14709013723.099	343	42883421.933				
<b>Level of Environment</b>	envlevel	146892946.111	2	73446473.056	1.695	.185	.010	.356
	Error	14861226551.311	343	43327191.112				
<b>Level of Product</b>	prolevel	444642371.379	2	2.223E+9	5.236	.006	.030	.830
	Error	14563477126.043	343	42459116.986				
<b>Level of Total CSR</b>	CSRlevel	77274483.442	2	38637241.721	.888	.413	.005	.203
	Error	14930845013.981	343	43530160.391				

Note: comlevel = Level of Community Relations, emplevel = Level of Employee Relations, envlevel = Level of Environment, prolevel = Level of Product, CSRlevel = Level of Total CSR.

<sup>a, b</sup> The significant difference between groups was not interpreted because of a lack of either a medium effect size or high power.

Table 118. Summary of Sidak Post Hoc Analysis of Main Effects of Level of CSR Variables for *Market Capitalization Annual Growth*

CSR Variable		Level of Market Capitalization		
Level of Product	Low	High	Medium	

In Table 118, the groups for the Level of CSR variables are listed in descending order according to the group means for *Market Capitalization Annual Growth*. In terms of *Level of Product*, the order of performance ranged from Low to High to Medium, relative to *Market Capitalization Annual Growth*, with organizations with the Low and Medium levels being significantly different.

For this set of analyses for the DV of *Market Capitalization Annual Growth*, the two Level of CSR variables of *Level of Diversity* and *Level of Corporate Governance* resulted in the criteria-based significant interaction effects. The analysis for these variables was carried to the simple main effects level. Included in Tables 119-122 are the summaries of the simple main effects analysis for the between groups portion, within subjects portion, as well as their respective post hoc analyses.

Contained within Table 119 is a summary of the simple main effects analysis for the *Year* factor for each level of the between groups factor for the variables of *Level of Diversity* and *Level of Corporate Governance*. A look at the table reveals that there were significant differences across time for the between groups levels of Low, Medium, and High for *Level of Diversity*, and for Low and Medium for *Level of Corporate Governance*. A quadratic trend was present for years in the High *Level of Diversity* and the Low *Level of Corporate Governance* (See the Tests of Within-Subjects Contrasts tables in Appendix S).

Refer to Table 120 for a summary of the specific differences across years, where the years are listed from left to right in descending order of group means relative to *Market*

*Capitalization Annual Growth*, and underline notation is used to depict the years that were not significantly different from each other.

Table 119. Summary of Within Subjects Simple Main Effects Analysis of Year at *Level of Diversity* and *Level of Corporate Governance* for *Market Capitalization Annual Growth*

CSR Variable	Level of Total Assets	F	df	Error df	p	$h_p^2$	Power
<b>Level of Diversity</b>	<b>Low</b>	1.030	10	334	.418	.030	.544
	<b>Medium</b>	2.498	10	334	.007	.070	.949
	<b>High</b>	14.000	10	334	.000	.295	1.000
<b>Level of Corporate Governance</b>	<b>Low</b>	14.023	10	334	.000	.296	1.000
	<b>Medium</b>	3.029	10	334	.001	.083	.982
	<b>High</b>	.117	10	334	1.000	.003	.087

Table 120. Summary of Sidak Post Hoc Analysis of Simple Main Effect of Year at *Level of Diversity* and *Level of Corporate Governance* for *Market Capitalization Annual Growth*

<i>Level of Diversity</i>											
Level of CSR	Year										
<b>Med</b>	1998-1999	1997-1998	1996-1997	1994-1995	1995-1996	1991-1992	1992-1993	1999-2000	1993-1994	2000-2001	2001-2002
<b>High</b>	1996-1997	1997-1998	1998-1999	1994-1995	1995-1996	1992-1993	1991-1992	1993-1994	1999-2000	2000-2001	2001-2002
<i>Level of Corporate Governance</i>											
Level of CSR	Year										
<b>Low</b>	1997-1998	1996-1997	1998-1999	1994-1995	1995-1996	1992-1993	1991-1992	1993-1994	1999-2000	2000-2001	2001-2002
<b>Med</b>	1996-1997	1997-1998	1998-1999	1994-1995	1995-1996	1991-1992	1992-1993	1999-2000	1993-1994	2000-2001	2001-2002

Note: Med = Medium.



Table 120 is a summary of the Sidak post hoc analysis of the differences among years for the different groups of *Level of Diversity* and *Level of Corporate Governance*. As revealed in the table, no significant differences were found for the Medium levels of both *Level of Diversity* and *Level of Corporate Governance*, although these variables each had a significant difference and high power estimate present in the simple main effects analysis. Perhaps their medium strengths of association (.070 and .083, respectively) and conservative nature of Sidak contributed to the lack of differences found. For organizations with the High level of *Level of Diversity*, the 1996-1997 range had the highest scores and 2001-2002 the lowest. This high range significantly differed from the low range, including the second to lowest range of 2000-2001. For this variable, the range of 2001-2002 with the lowest scores significantly differed from the eight years with the highest scores in the time period.

Table 121 is a summary of the simple main effects analysis for the between groups factor for each year. Because this dependent variable depicts annual growth, a year is represented as the time between two specific years, and only eleven years were calculated. A review of the table reveals that there were significant differences between groups for six out of eleven years for *Level of Diversity* (four consecutive years starting with 1994-1995 and two consecutive years of 2000-2001 and 2001-2002), and seven years (five consecutive years starting with 1994-1995 and two consecutive years of 2000-2001 and 2001-2002) for *Level of Corporate Governance*. Refer to Table 122 for a summary of the Sidak post hoc analysis that depicts the nature of the differences per year for each of these two variables.

Table 121. Summary of Simple Main Effects Analysis of *Level of Diversity* and *Level of Corporate Governance* at Year for Market Capitalization Annual Growth

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
Level of Diversity	91-92	Bw grps	2819494.847	2	1409747.424	.139	.870	.001	.071
	92-93	Bw grps	7503594.581	2	3751797.290	.477	.621	.003	.121
	93-94	Bw grps	1189505.088	2	594752.544	.128	.880	.001	.069

Table 121 Continued

CSR Variable	Year	Source	SS	df	MS	F	p	$h_p^2$	Power
<b>Level of Diversity</b>	94-95	Bw grps	1203707718.163	2	601853859.082	25.735	.000	.132	1.000
	95-96	Bw grps	415101231.460	2	207550615.730	5.265	.006	.030	.835
	96-97	Bw grps	3811454006.265	2	1905727003.133	27.363	.000	.137	1.000
	97-98	Bw grps	3191118579.087	2	1595559289.544	9.827	.000	.054	.983
	98-99	Bw grps	1463923073.014	2	731961536.507	1.851	.159	.011	.391
	99-00	Bw grps	190213757.285	2	95106878.643	.319	.727	.002	.100
	00-01	Bw grps	2783894932.497	2	1391947466.249	8.771	.000	.048	.969
	01-02	Bw grps	3144607108.792	2	1572303554.396	7.281	.001	.040	.929
<b>Level of Corporate Governance</b>	91-92	Bw grps	2007689.187	2	1003844.593	.099	.906	.000	.061
	92-93	Bw grps	32155338.841	2	16077669.421	2.063	.129	.016	.544
	93-94	Bw grps	16544867.705	2	8272433.852	1.796	.167	.010	.376
	94-95	Bw grps	1391865137.175	2	695932568.588	30.466	.000	.151	1.000
	95-96	Bw grps	848114131.875	2	424057065.938	11.109	.000	.061	.992
	96-97	Bw grps	3527982758.168	2	1763991379.084	25.035	.000	.131	1.000
	97-98	Bw grps	3868480612.355	2	1934240306.178	12.058	.000	.066	.995
	98-99	Bw grps	3831785202.232	2	1915892601.116	4.930	.008	.029	.817
	99-00	Bw grps	512695.207	2	256347.603	.001	.999	.000	.050
	00-01	Bw grps	4826589045.721	2	2413294522.861	15.789	.000	.085	1.000
	01-02	Bw grps	6808149523.459	2	3404074761.730	16.573	.000	.089	1.000

Note: Bw grps = Between groups.

Table 122. Summary of Sidak Post Hoc Analysis of Simple Main Effects of *Level of Diversity* and *Level of Corporate Governance* for *Market Capitalization Annual Growth*

CSR Variable	Year	Level of Market Capitalization Growth		
<b>Level of Diversity</b>	1994-1995	High	Medium	Low
	1995-1996	High	Medium	Low
	1996-1997	High	Medium	Low
	1997-1998	High	Medium	Low
	2000-2001	Low	Medium	High
	2001-2002	Low	Medium	High
	1994-1995	Low	Medium	High
	1995-1996	Low	Medium	High
	1996-1997	Low	Medium	High
	1997-1998	Low	Medium	High
<b>Level of Corporate Governance</b>	1994-1995	Low	Medium	High
	1995-1996	Low	Medium	High

Table 122 Continued

CSR Variable	Year	Level of Market Capitalization Growth		
		Low	Medium	High
<b>Level of Corporate Governance</b>	1996-1997	Low	Medium	High
	1997-1998	Low	Medium	High
	1998-1999	Low	Medium	High
	2000-2001	High	Medium	Low
	2001-2002	High	Medium	Low

The performances for *Level of Diversity* and *Level of Corporate Governance* are listed in Table 122 in descending order of their group means relative to *Market Capitalization Annual Growth*. The order of performance for *Level of Diversity* ranged from High, Medium, to Low for the first four years presented in the table, but from Low, Medium, to High in the last two years presented for this variable. For these first four years, companies with the High performance of *Level of Diversity* resulted in the highest level of *Market Capitalization Annual Growth*, while those with the Low performance resulted in the lowest. For the last two years, the opposite was true – organizations with the Low level of performance resulted in the highest *Market Capitalization Annual Growth* and those with the High level in the lowest. Variations in the significance of differences between groups was present for *Level of Diversity* in that organizations with the High level significantly outperformed those with both the Medium and Low levels for three of the first four years (1994-1995, 1996-1997, 1997-1998), with the High group only significantly differing from the Low group for the year 1995-1996. For the last three years presented for *Level of Diversity* (1998-1999, 2000-2001, 2001-2002), organizations with the Low and Medium

levels were not significantly different, but resulted in significantly higher *Market Capitalization Annual Growth* rates than those with the High level.

Looking at the results for *Level of Corporate Governance*, one can see a similar pattern to that of *Level of Diversity* in that the performances for the first five years presented in the table shared the same range from Low, Medium, to High, while the last three years presented are from High, Medium, to Low. Although the consecutive years shared the same order of performance for both variables of *Level of Diversity* and *Level of Corporate Governance*, it is interesting to note that the order of the ranges are reversed from earlier years and late years of *Level of Diversity* when compared to *Level of Corporate Governance*.

Referring to *Level of Corporate Governance* specifically, organizations with the Low level of performance resulted in the highest *Market Capitalization Annual Growth* for the earlier years (consecutive years from 1994-1995 until 1998-1999), with those with the Low level being significantly higher than those with both the Medium and High levels from 1994-1995 until 1997-1998. For the last three years for *Level of Corporate Governance* in the table (1998-1999, 2000-2001, 2001-2002), organizations with the High and Medium levels of performance produced the higher *Market Capitalization Annual Growth*, significantly different from those with the Low level of performance of *Level of Corporate Governance*.

This section concludes the presentation of results from the study. For a more thorough view of results from all of the statistical analyses performed, refer to Appendices C-S, which contain the SPSS outputs of the complete mixed model ANOVAs and post hoc follow-ups for each analyses set. Chapter V serves as the final chapter of the dissertation; and includes a summary of the study results, a related discussion and overall conclusions, and the theoretical and practical implications and recommendations suggested by the researcher.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

This chapter is divided into five main sections – a summary of the overall study in which its purpose, aims, and the research methods employed are highlighted; a summative presentation of the study results and key findings from the analyses; a discussion of the results and the main conclusions drawn by the researcher from the study; the implications of the study toward the development of theoretical and practical knowledge; and the researcher's recommendations for both practice and research based on study implications.

#### **Summary of Study**

The goal for this study was to empirically explore the CSR practices of large U.S.-based corporations, over a longitudinal period of 12 years. The researcher was interested in exploring not only how the CSR practices changed over time, but also the underlying relationships with various corporate classification variables and variables of corporate financial performance (CFP). Although much research on CSR practices, particularly related to CFP, has already been conducted, researchers in the literature still cite several reasons to continue exploring the subject. One particular reason has to do with the vastness of the grand construct of CSR, which has been defined and depicted in many different contexts, and of which interested parties have not yet reached a consensus. Moreover, since the legal confinements of corporations require the maximization of shareholder wealth, the topic of CSR can rarely be examined justly without the considerations of CFP.

Given the broad nature of CSR and its applicability for many dimensions of business and society, the researcher proposed incorporating a wide variety of corporate classification variables in the study to determine if different levels of the selected variables affected CSR.

This aim was aligned with trying to further the knowledge of CSR practices and associated variables. The variables proposed for analyzing the differences of levels of CSR and resulting CFP were believed to be representative of both accounting and market aspects, which have been a suggested focus within related literature.

In this study, CSR was defined as a construct consisting of corporate performance in the six CSR categories of Community Relations, Diversity, Employee Relations, Product, Environment, and Corporate Governance; and an additional category of Total CSR, which was an aggregate measure of the previous six. Data for these variables were obtained for the years 1991-2002 from the third-party organization, KLD, which has been deemed a reputable and valid source of CSR ratings (Griffin & Mahon, 1997; Sharfman, 1996; Szwajkowski & Figlewicz, 1999; Wood, 1995; Waddock & Graves, 1997). A more detailed discussion of KLD and its ratings process was provided in Chapter III, and a list of previously published studies using KLD data can be found in Appendix A.

The CSR ratings by KLD were provided in the form of strength and concern items, or specific practices that were considered to be positive or negative CSR behaviors, within the first six CSR variables formerly listed. The researcher created a unique scale to recode the ratings for analysis that placed a greater emphasis on the positive behaviors and a lesser weight to the negative behaviors, since the concern items were associated with either illegal or unethical business actions, and the strength items represented actions that were considered to be above and beyond standard legal requirements for businesses regarding their primary constituents.

The specific research questions for the study yielded two main foci – 1. To assess the differences in average performance of the seven CSR practices for organizations with

different levels of the chosen corporate classification and corporate financial performance variables for the given time period, and 2. To assess the differences in average performance of CFP for organizations with different levels of the CSR practices for the same time period. The research was conducted on 353 publicly held U.S. companies that spanned multiple industries and varied in size and the scope of their business operations. The statistical analyses employed throughout the study were two-factor mixed model ANOVAs with repeats on the second factor, which included trend analyses, simple main effects, and post hocs. This type of analysis allowed the researcher to assess the results longitudinally, as each model incorporated the independent variable of Year (in addition to the other selected independent variable chosen for each model). Limitations of the study were discussed in more detail in Chapter I, of which the main drawbacks to the study included:

1. There was no previously agreed upon measure for CSR, thus the construct used is subject to scrutiny.
2. The CSR data was defined and provided by KLD, not the researcher.
3. There is no consensus for appropriate measures of CFP within CSR research, subjecting these variables to scrutiny as well.
4. Due to a limited number of observations resulting from multiple crossing procedures, the researcher was not able to employ certain control variables within the study as suggested by the literature.

Nevertheless, justification for the CSR construct incorporated within the study lies with the commonality of variables considered to be key determinants of CSR in other studies, and the frequent reliance on KLD for the provision of CSR data. Furthermore, the variables chosen for the CFP construct coincide with those used in related studies, and fall under the auspices

of recommended CFP categories. Although the lack of control variables presented the limitation of not being able to determine certain effects in the relationships of CSR and CFP, the total number of observations in the study yielded a greater statistical power, in addition to the positive essence of being able to analyze the differences over a large span of time. Moreover, the suggested controls presented by the literature (industry, size, and risk) were incorporated in the analyses as part of the selected corporate classification and financial performance variables used to assess their associative relationships with CSR. A discussion of the results from the study is contained within the next section.

### **Summary of Results**

The results of the study are presented for each research question, and are subsequently divided into two main sections. The research questions were as follows:

1. Are there differences in average performance of the seven CSR practices (Community Relations, Diversity, Employee Relations, Environment, Product, Corporate Governance, Total CSR), for companies with different levels of selected CFP and corporate classification variables, from the period of 1991-2002?  
  
Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?
2. Are there differences in average performance of CFP, in terms of Return on Assets (ROA), Sales, Market Capitalization, ROA Annual Growth, Sales Annual Growth, and Market Capitalization Annual Growth, for companies with different levels of the CSR practices, from the period of 1991-2002? Additionally, are there interactions between the levels of the respective independent variables with the independent variable of year?



The first research question dealt with assessing CSR, while the second focused on assessing CFP. Since each research question involved multiple analyses with several variables, specific findings will be discussed per analyses sets. For example, differences in average performance of CSR variables for levels of performance of various corporate classification and CFP variables over time were explored under the first research question. Thus, one set of analyses assessed the differences in average performances from 1991-2002 for the seven CSR variables, for different levels of selected corporate classification or CFP variables. There were eleven selected independent variables and resulting sets of analyses for the first research question, which are subsequently presented by results relating to changes in CSR practices across time, and then according to changes in practices for differences in levels of the independent variables.

Likewise, the results from the second research question are discussed accordingly – by analyses sets that were performed to answer the question about differences in average performances of CFP for different levels of CSR over time. However, these analyses are subsequently presented by the chosen dependent (or CFP) variables employed within the analyses. There were six selected dependent variables and resulting sets of analyses for the second research question.

### *Research Question 1 – Assessing CSR*

For eight out of the eleven sets of CSR analyses, no significant interaction effects were present between the independent factors representing Year and the selected corporate classification aspect. The three sets of analyses that did result in significant interaction effects involved the independent variables of *Closely Held Shares*, *Net Income*, and *Total Assets*; in which significance was present in analyses with the dependent variable of *Corporate*

*Governance* in all three sets, and *Community Relations* for analyses utilizing *Net Income* and *Total Assets*, and additionally *Diversity* for those with *Total Assets*. Specific findings from these analyses sets for the variables that resulted in significant interactions are presented at the end of the discussion of results on *Assessing CSR*.

For all of the CSR analyses, there was never a difference across years for the dependent variable of *Total CSR*. This finding could indicate that the aggregate measure does not provide a clear representation of companies' CSR practices when viewed over time, since it is possible that while performance for some variables increased in some years, others decreased, leaving an effect of no change. In addition, differences across years were non-significant for the variable of *Environment* in all cases of the within subjects main effects analyses, indicating that practices in this category were stabilized. This result can be understood by considering standard environmental regulations that were already in place for these companies. In all cases but one, no significant differences resulted from the Sidak post hoc analysis for the variable of *Employee Relations*, even though significance for Year was present in eight of the CSR analyses sets. This lack of differences could have been due to the conservative nature of the Sidak measure, with the differences across years being too subtle to be detected by the post hoc follow-up procedure.

In assessing the main effects for Year from these same sets of analyses, a downward linear trend was observed for the variables of *Community Relations*, *Product*, and *Corporate Governance*, whereas an upward linear trend was present for *Diversity*. These results suggest that while average CSR performance in the category of *Diversity* increased over the study time frame, that for *Community Relations*, *Product*, and *Corporate Governance* decreased. The positive growth in the category of diversity practices could have been attributed to

certain external institutional effects, such as the increased attention on policies related to Affirmative Action in the 1990s. Specifically for the variable of *Community Relations*, the significant differences across years tended to exist among the couple of years at each end of the spectrum with average low and high performances from the other years. Often for *Diversity*, average performances of organizations for the three years on the low end typically differed from those in years with higher average scores. For *Product*, the consistent year with the lowest average scores was 2002, which was the constant significantly different year for all analyses where significant differences were revealed across years for this variable (In two of the eleven sets of CSR Analyses, no significant differences across years resulted from the Sidak post hoc analysis for *Product*). Finally, for *Corporate Governance*, the results were that average performance scores in earlier years tended to differ from those in later years in the CSR Analyses.

In terms of the results from assessing differences in levels of the 11 independent variables utilized within the study, no significant differences between groups were found for the variables of *U.S. Region of Headquarters (HQ)*, *Primary Standard Industrial Classification (PSIC)*, *Level of Price Volatility*, and *Level of ROA*. The variable, *U.S. Region of HQ* was employed as a measure of geographical diversification, to explore possible differences across four U.S. regions (Northeast, South, West, and Midwest) for any possible cultural implications. Interestingly, for the analyses using the variable of *U.S. Region of Inc.* as another measure of geographical diversification to explore cultural implications, significant differences between groups were found for the dependent variables of *Community Relations*, *Diversity*, and *Total CSR*. Specifically for *Community Relations*, organizations in the South region performed significantly lower than the others, while organizations in the

Northeast performed the highest for *Diversity*, and organizations in the Midwest region had significantly better *Total CSR* than organizations located in the South. The cultural implications that can be derived from these results possibly rest in the underlying value systems most commonly upheld in the respective regions.

Although differences between groups (Manufacturing, Services, Wholesale & Retail Trade, and Transportation & Utilities) were expected for the variable of *PSIC*, the surprising result was that none were found. Perhaps the lack of differences had to do with broad categorization of industrial classifications (Only four industry categories were compared that were formed from the collapsing of six industrial categories, which represent substantially broad industry classifications), rather than the variable of industry not being a good predictor of CSR practices in general.

The variables of *Level of Price Volatility* and *Level of ROA* were both divided into groups of Low, Medium, and High performance, and were chosen as measurements of market stability and company profitability, respectively. The result of no differences between groups and a low effect size for the analysis with *Level of Price Volatility* suggests that there was no relationship between market stability, as measured by a company's average annual fluctuation of its stock price, and CSR. Previous researchers have suggested that the availability of slack resources would preclude social responsibility (McGuire, Sundgren, & Schneeweis, 1988; Preston & O'Bannon, 1997; Seifert, Morris, & Bartkus, 2004; Ullman, 1985; Waddock & Graves, 1997); however the findings from this study did not support this suggestion in regards to differences between the groups established for the *Level of ROA*.

Nevertheless, differences between groups were found for analyses sets in which the financial variables of *Level of Working Capital*, *Level of Net Income*, and *Level of Total*

*Assets* were incorporated, which did support the slack resources theory. The latter variables represent a company's short-term financial health, total earnings or profits, and the sum of all the company's assets, respectively. Interestingly, the CSR practice that varied among the different groups across analyses with the three latter independent variables was *Environment*, even though this was one of the CSR practices not shown to differ across years. In the cases of analyses with *Level of Working Capital* and *Level of Net Income*, organizations in the High category were significantly better in their average environmental practices, while organizations in the Low category of *Level of Total Assets* outperformed organizations in the other groups with respect to the environment. Additionally, organizations with a High *Level of Working Capital* were found to have greater average performances in the other CSR practices of *Product*, *Corporate Governance*, and *Total CSR* as well; while organizations with a Low *Level of Total Assets* were the strongest with regards to *Product* and *Total CSR* (and *Environment*). In contrast, organizations in the High category of *Level of Total Assets* had significantly higher *Diversity* scores than those with lower levels; this result being shared for organizations with a High *Level of Net Income*.

As previously noted, analyses in which the variables of *Level of Net Income* and *Level of Total Assets* were utilized, resulted in significant interaction effects between the respective classification variable and the variable of years. Interactions were found across both sets of analyses for the dependent variables of *Community Relations* and *Corporate Governance*. In terms of differences across years for the different levels of both predictor variables, organizations in the High group decreased their average *Community Relations* and *Corporate Governance* practices over the study time frame, and so did organizations in the Medium group of *Level of Total Assets* for *Corporate Governance*. Regarding differences between

groups within years, organizations had the strongest *Community Relations* practices during the first half (1991-1997) of the time frame with a High *Level of Net Income* and *Level Total Assets*. A potential explanation for the former assessments could be that the organizations with greater financial power were overshooting their emphasis on CSR, and then leveled off as time passed. However, having a Low *Level of Total Assets* resulted in the best *Corporate Governance* in almost every year (except 1991); whereas the results for *Corporate Governance* for different *Levels of Net Income* were more varied, with organizations' average performances swaying between being better with Low levels in some years and High levels in others. *Level of Total Assets* is also a measure of a company's size; therefore, a plausible reason for the lower levels resulting in better *Corporate Governance* could lie in the magnitude of the firm and the subsequent difficulties in governing such large entities.

The final sets of CSR analyses to be discussed dealt with dimensions of corporate leadership, such as those in which the variables of *Level of Diversity of Corporate Leaders*, *Level of Compensation of Corporate Leaders*, and *Level of Closely Held Shares* were utilized. These variables represented the diversity of a corporation's CEO and board of directors, their salary levels (notably high or low), and their levels of stock ownership, respectively. There were average performance differences among organizations with different *Levels of Compensation of Corporate Leaders* and *Levels of Closely Held Shares* for the CSR practices of *Diversity* and *Product*, and also for *Environment* for firms with different *Levels of Compensation of Corporate Leaders*. Specifically, organizations with the Low *Level of Closely Held Shares* had the best practices for *Diversity* and worst practices for *Product*, while organizations with the High *Level of Compensation of Corporate Leaders* performed stronger than others for these two categories. In contrast, organizations with a

*Low Level of Compensation of Corporate Leaders* were the strongest in regards to *Environment*. Perhaps this finding relates to a lack of perceived benefits from investing in other CSR activities, and/or management's lack of incentives to expend resources on CSR that would detract from their level of compensation. The former results for *Product* could be explained by considering that corporate leaders might have viewed an association between an emphasis on product safety/quality and expected returns on ownership investment and management rewards. The results varied for analyses with *Level of Diversity of Corporate Leaders* in that firms with the High level had the best *Community Relations*, while those with the Low level had the best *Corporate Governance*. The finding that the most diverse leadership teams placed a greater emphasis on its relations with the surrounding community is not surprising, given that a broader array of backgrounds and belief systems from diverse individuals would lead to a wider context of foci for others. The analyses with *Level of Closely Held Shares* also contained significant interaction effects between this independent variable and Year for the dependent variable of *Corporate Governance*. Regarding differences across years for each *Level of Closely Held Shares*, organizations with the Low and Medium levels decreased their positive behaviors in *Corporate Governance* over the study time period. In terms of differences among *Level of Closely Held Shares* within the years, firms that had a High level displayed the best *Corporate Governance* practices in all years except 1991-1992. The latter makes sense when considering that the variable of *Corporate Governance* is partly measured by executive compensation; thus, negative behaviors in this category could be offset by executives having other potential means of financial reward.

### *Research Question 2 – Assessing CFP*

Two of the six sets of CFP analyses had significant interaction effects for the independent factors representing CSR and Year. The two sets of analyses that resulted in significant interaction effects involved the dependent variables of *Market Capitalization* and *Market Capitalization Annual Growth*; in which significance was present in analyses that incorporated the independent CSR variables of *Diversity* and *Corporate Governance* in both cases, and *Product* for analyses utilizing *Market Capitalization*. Results from these two analyses sets were similar for the main effects and also the simple main effects analyzed. In terms of the main effects, there were differences across years when assessing the respective financial performances with the levels of the CSR variables of *Level of Community Relations*, *Level of Employee Relations*, *Level of Environment*, and *Level of Total CSR* in both cases (and *Level of Product* for *Market Capitalization Annual Growth*). No significant post hoc results were found for assessing the specific changes in performance across years for *Market Capitalization Annual Growth*, but an increase in *Market Capitalization* across the study time frame for all four of CSR variables just mentioned was illustrated by the post hoc analyses for this variable. The average performance of *Market Capitalization Annual Growth*, as assessed by *Level of Product*, had a quadratic trend with multiple changes in both directions throughout the twelve years. In terms of differences in financial performance among the three levels of the CSR variables (High, Medium, Low), there were differences in *Market Capitalization* for *Level of Community Relations*, *Level of Employee Relations*, and *Level of Environment*; while a different *Level of Product* resulted in differences in *Market Capitalization Annual Growth*. Specifically, organizations that had a High *Level of Community Relations* and *Level of Employee Relations* outperformed others, whereas those



with a Low *Level of Environment* and *Level of Product* exhibited better average financial performances than the others (*Market Capitalization* and *Market Capitalization Annual Growth*, respectively). These results lend support to other researchers who found that good corporate reputation (measured via good relations with employees and the community in this study) had a positive impact on market value and growth (Hillman & Keim, 2001; Wu, 2006). Moreover, previous researchers have found a negative association between market valuation and a higher level of commitment to the environment that exceeded standards (Bird et al., 2007). The findings in the category of *Product* were less clear, since it would seem like a stronger emphasis on product safety and quality would contribute to market growth via corporate reputation effects and/or better brand recognition, but that result was not reflected from the current study findings. Perhaps the findings resulted from less spending toward product development which may have allowed greater resource allocation in more profitable practices.

Regarding the simple main effects for the sets of analyses for *Market Capitalization* and *Market Capitalization Annual Growth*, differences in financial performance existed across the time frame for firms in the Medium and High categories of *Level of Diversity* and those in the Low and Medium groups of *Level of Corporate Governance*, for both financial variables. Again, results were similar across analyses sets in that no significant post hoc results were found for both the Medium *Level of Diversity* and the *Level of Corporate Governance*, but post hoc results varied for the High *Level of Diversity* which showed an increase in *Market Capitalization* over the years and changes in both directions across the years for *Market Capitalization Annual Growth*. The same pattern was true for the Low *Level of Corporate Governance*. In judging the differences in financial performance among the

various levels of these CSR variables for specific years, organizations that had a High *Level of Diversity* were shown to outperform the others with respect to *Market Capitalization* in every single year and most years in the middle of the time frame for *Market Capitalization Annual Growth*, although *Market Capitalization Annual Growth* was the worst for firms with a High *Level of Diversity* from the years between 2000-2002. In contrast, organizations with a Low *Level of Corporate Governance* had the best *Market Capitalization* in every year; and varied with regards to *Market Capitalization Annual Growth*, with organizations having a Low *Level of Corporate Governance* performing the best in some years and the worst in others. It would appear that the value placed on these two CSR practices changed during the course of the study time frame for reasons not explained by the variables used in this study. For the *Market Capitalization* of organizations with a different *Level of Product*, an increase in financial performance over the years was found for firms with both the Low and High levels. In terms of differences in *Level of Product* for *Market Capitalization*, organizations in the Medium category had the worst financial performance in each year of the time period. These results might suggest that either trying to be a brand leader or being more cost conservative with regards to product development could result in the ability to increase market value. It should be noted that the similar results generated for analyses sets for *Market Capitalization* and *Market Capitalization Annual Growth* could be attributed to the rather strong correlation between the two variables (.82, significant at the .01 alpha level).

For the other CFP Analyses sets that did not result in any significant interaction effects, there were no differences found when judging different levels of the CSR variables for the dependent variable of *Sales Annual Growth*, although significant differences in average *Sales Annual Growth* over years were present for analyses in which the independent

variables of *Level of Diversity*, *Level of Employee Relations*, and *Level of Environment* were utilized. However, the specific differences across the years were determined to be non-significant due to the lack of results found by the Sidak post hoc analysis. In terms of changes across years for the other financial variables (*Sales*, *ROA*, and *ROA Annual Growth*), differences in performance were found in analyses with all seven CSR variables for *Sales* and *ROA*, and for all except *Level of Community Relations* for *ROA Annual Growth*. Once again, there were no significant differences found across years as revealed by the post hoc analyses for *ROA Annual Growth*, but post hoc tests for the analyses of *Sales* displayed a decrease over the time period in this area of financial performance, with each of the CSR variables employed as independents. For the analyses of *ROA*, quadratic trends were present, which indicated both increases and decreases in this type of financial performance over the time period, regardless of the CSR variable considered.

Additionally, differences in financial performances were found among various levels of the CSR variables, with the most differences existing for analyses with *Sales*. For this dependent variable, organizations that had a High *Level of Diversity* and *Level of Employee Relations* had higher *Sales* than others in these categories, while the highest *Sales* in other CSR dimensions resulted for firms with a Low *Level of Environment*, *Level of Product*, and *Level of Corporate Governance*. Perhaps the result of higher *Sales* for companies with greater *Diversity* and better *Employee Relations* suggests an association between employee morale or satisfaction and financial performance. Moreover, firms that had the lowest positive impact on the environment, the least quality of products, and the lowest compensation of its leaders were probably able to concentrate better on cost savings to pass to consumers with lower prices for higher *Sales*.

Other results found were that organizations with a High *Level of Employee Relations* had the best ROA, and those with a High *Level of Community Relations* outperformed those in the Low category for *ROA Annual Growth*. Once again, a link to a positive corporate reputation and/or employee morale and profitability could help to explain these findings, especially in lieu of ROA being a reflection of the internal management of firms with their assets. Finally, for all of the CFP analyses, there was never a significant difference between groups for the independent variable of *Level of Total CSR*. The lack of differences found for this variable in the assessments of all the selected financial performance variables could be an indication that utilizing the aggregate measure of CSR is not a reliable predictor of CFP.

### **Discussion and Conclusions**

Given the compilation of the design of the study, literature review, and summary of results, several points can be discussed from which certain conclusions can be made. From this study, it appears that relationships between CSR and CFP do exist, but the existence and nature of the relationships depend on the types of measurements employed to study these aspects. As revealed by the results, there is support for the slack resources theory, as companies with greater short-term financial health were overwhelmingly more engaged in CSR (in four out of seven CSR categories). The more profitable organizations outperformed others with good *Community Relations* and *Diversity* practices, while the least profitable organizations focused the most in their efforts toward the *Environment*, with the best *Corporate Governance* practices resulting from the most and least profitable organizations depending on the year examined.

In assessing differences in levels of CSR with financial performance as the dependent variables, organizations that exhibited some of the highest CSR scores in certain categories

were also found to be the best financial performers in terms of *ROA*, *Sales*, *ROA Annual Growth*, *Market Capitalization*, and *Market Capitalization Annual Growth*. Although, findings produced for the latter two variables also revealed that not being rated the highest on some CSR aspects resulted in the best levels of financial performance. These combinations of results lend support for the instrumental stakeholder and strategic management theories of CSR, which are presented to suggest that managers of organizations should carefully gauge their internal and external business environments to determine the best uses or payoffs for their resources devoted to social responsibility (Berman, Wicks, Kotha, & Jones, 1999; Porter & Kramer, 2006). Moreover, in several cases of the results, companies that had either High levels of *Community Relations*, *Employee Relations*, and/or *Diversity* generated the best financial pay offs, which lends support for research that associated positive corporate reputation and CFP (see Wu, 2006).

The profitability measure of *ROA* was incorporated into the study as both an independent and dependent accounting variable, to relate to previous or subsequent CSR, since the issue of bidirectionality or a virtuous cycle between CFP-CSR has arisen in the literature (Orlitzky, Schmidt, & Rynes, 2003). Given the results of the study, *ROA* does not seem to be the best indicator of either construct, although the variable of *ROA* was the most predominantly employed CFP measure in Orlitzky et al.'s (2003) meta-analysis, from which accounting measures were found to have a greater association with CSR than market-based ones.

Furthermore, the results from analyses with *Total Assets* provided evidence that firm size and CSR are related. One school of thought is that firms of larger proportion would expend greater CSR efforts due to larger resource pools, but the current study only supported

that theory in the areas of *Diversity* and *Community Relations*, whereas the smallest organizations performed better than larger ones in the areas of *Environment*, *Product*, *Corporate Governance*, and *Total CSR*. However, the limitation of not judging CSR practices within various groups of *Total Assets* did not allow for the depth of inquiry about more specific firm size-CSR relationships, other than that there were differences among the groups generated for the study. In other words, while it was revealed that various sized organizations performed differently in certain CSR categories, the results could not indicate whether these performances were relatively good or bad.

There was a surprising result of no differences in CSR across industries (classified by *PSIC*), although perhaps the examination of within industry differences would have been more compelling. The researcher was not able to explore these due to the limited number of observations that resulted from procedures involving crossing this independent variable with other variables. A finding of differences was also missing for organizations with different levels of *Price Volatility*, although this measure of risk can be deceiving because a high volatility of stock prices, which might seem unstable, could be the result of substantial market value increases. Regardless, no differences among organizations with the different levels of price volatility were found.

There were interesting findings from the study on the three corporate leadership dimensions (diversity, compensation, and corporate stock ownership of executives), which provided specific hints about executive leaders' incentives regarding decisions to invest in CSR. Additionally, the findings from judging differences in CSR practices across the four U.S. regions where the companies were incorporated (*U.S. Region of Inc.*) generated

interesting insights into possible cross-cultural values and their implications for business practices.

The variable with the most puzzling results within the study was *Corporate Governance*, when it was employed as an independent variable for various forms of financial performance. For example, organizations that had the lowest *Corporate Governance* scores outperformed the others in *Sales* and *Market Capitalization*, and in some years for *Market Capitalization Annual Growth*. In later years investigated in the study, having a Low *Level of Corporate Governance* resulted in the worst *Market Capitalization Annual Growth* as compared to the other organizations for this category. The Low *Level of Corporate Governance* represented the highest levels of executive compensation and/or institutional ties to firms with negative CSR ratings. Perhaps high levels of executive compensation could be associated with better financial performance, since compensation is often based on a high level of expertise and the success of executives. However, significant differences were not found among groups in analyses that utilized *Level of Compensation of Corporate Leaders* for *Corporate Governance* practices. Moreover, since positive CSR has been linked to positive CFP, the result of organizations having a Low *Level of Corporate Governance* but greater financial performance is somewhat difficult to comprehend. Since *Corporate Governance* was a measure of both levels of executive compensation and organizational associations with firms with negative CSR ratings, it is possible that the combination of the two aspects being an either/or component of the overall measurement confounded the results.

There were differences in trends of the CSR practices in general over the study time period, as the emphasis on some variables increased while that for others decreased. Given that the CSR practices were studied with the same set of companies during the same time

frame, it is not surprising that the organizations did not increase CSR performance in all categories. The CSR practice that received the most increased attention from organizations was *Diversity*, which was likely the result of external institutional forces emphasizing diversity awareness at the time. The contrasts between the increases and decreases of the CSR practices left an effect of no change over years when the *Total CSR* was measured for companies, which supports other researchers' urges for using disaggregated measures of CSR for a more in-depth inquiry (Bird et al., 2007; Hillman & Keim, 2002; Orlitzky et al., 2003). The latter suggestion was also supported by the current study results in that no significant differences were found between groups when *Level of Total CSR* was utilized as the independent variable for assessing selected measures of CFP; whereas in each set of analyses assessing CFP, there was a significant difference between the levels of at least one of the six CSR variables in disaggregate form.

### **Implications of the Study**

The focus of this study was on examining the CSR practices of large U.S.-based corporations over several years, which included analyzing CSR as both the dependent and independent variable(s), and in both an aggregated and disaggregated form. Stakeholder theory, which includes a collection of perspectives on why and how an organization should manage its various stakeholders in addition to what stakeholders should be acknowledged, was provided as the basis for the theoretical framework of the study. More specifically, descriptive stakeholder theory, which aims at describing how organizations approach stakeholder management decisions based on organizational characteristics, and instrumental stakeholder theory, which suggests how multiple stakeholders can be strategically managed, was utilized in support of the study design. Stakeholder theory (in the broad sense) has been



deemed as the appropriate framework for studying CSR (Clarkson, 1995; Jamali, 2008; Rowley & Berman, 2000; Ruf et al., 2001; Russo & Perrini, 2010; Wood & Jones, 1995), given the close association between the socially responsible business practices of organizations and the stakeholder groups which they affect. Multiple organizational stakeholders were represented in the study by the six dependent CSR variables of *Community Relations*, *Diversity*, *Employee Relations*, *Environment*, *Product*, and *Corporate Governance*, which covered the key stakeholder groups of organizations' local communities and environments, executive leaders and employees, and customers. Shareholders were the key stakeholder group represented by the six selected variables chosen for financial performance.

#### *Implications for Descriptive Stakeholder Theory*

Several key findings from the study contributed to the development of descriptive stakeholder theory. Specifically, the corporate aspects of geographical location and financial health, as well as the corporate leadership dimensions, such as diversity of executive boards and level of compensation and stock ownership for company officers and directors (as operationally defined) were found to have an impact on CSR practices for various stakeholder groups. These indications were evidenced by significant differences found among groups established for each classification variable in regards to the seven CSR practices assessed.

While two variables (*U.S. Region of Headquarters* and *U.S. Region of Incorporation*) were utilized within the study to represent geographical location, differences among groups or U.S. region were found only for the variable of *U.S. Region of Incorporation*; which resulted in performance differences for the CSR practices of *Community Relations*, *Diversity*,

and *Total CSR*. Nevertheless, these findings could suggest that implicit cultural differences or norms across the different regions may influence managerial decisions toward certain stakeholder groups.

In terms of the corporate leadership dimensions, the findings of differences in performance for the CSR practices of *Community Relations*, *Diversity*, *Environment*, *Product*, and *Corporate Governance* from analyses with *Level of Diversity*, *Level of Compensation of Corporate Leaders*, and *Level of Closely Held Shares* provided insights about specific dynamics associated with corporate leadership relative to investment in certain CSR practices.

Furthermore, the resulting differences in the CSR practices of *Community Relations*, *Diversity*, *Environment*, *Product*, *Corporate Governance*, and *Total CSR* from analyses with *Level of Working Capital*, *Net Income*, and *Total Assets* indicated that the financial status of organizations (as represented by the latter variables) contributed to decisions regarding CSR. Although, organizations with the greatest financial health did not always have the best CSR performances, which evidenced variations among preferences toward the different CSR categories.

Finally, from all the analyses with the selected corporate classification variables in the study, there was never a significant difference found between groups for the dependent CSR variable of *Employee Relations*. This interesting finding provided evidence that differences in an organization's geographical location, industry, structure and compensation of corporate leaders, market volatility, and financial health (as operationally defined) did not affect practices regarding the primary stakeholder group of employees. Moreover, when assessing *Employee Relations*, there was never a significant difference across years in any of

the sets of analyses, which revealed relatively stable practices in this CSR category from 1991-2002. The latter finding also held true for *Environment*.

Findings under the descriptive stakeholder approach can aid organizational decision-makers with greater knowledge of firms' characteristics that were related to primary CSR practices and how certain characteristics may have impacted CSR performances. Practically speaking, this type of information could assist managers in the structuring of CSR agendas for their own organizations. Theoretically speaking, results from the current study might prove useful for other scholars interested in the development of the descriptive stakeholder theory, and/or in the pursuit of related research designs.

#### *Implications for Instrumental Stakeholder Theory*

The current study also contributed to instrumental stakeholder theory through the results from analyses that assessed various measures of corporate financial performance, utilizing various levels of the CSR variables. These analyses allowed for the comparison of the management of the key stakeholder groups of the local community and environment, employees, and customers with the outcomes relative to what some consider the ultimate stakeholder group of shareholders. The selected variables chosen to measure CFP (representing shareholders) included both accounting and market-based measures, in line with recommendations from other researchers who suggested a more comprehensive approach.

Results from this stakeholder perspective, which are subsequently discussed, contained both practical and theoretical implications as well. A unique contribution of the study came from the comparison of organizations with different levels of CSR and resulting CFP, which can assist corporate managers with decisions on how various CSR practices

might be rewarded, and/or how to strategically balance multiple stakeholder groups.

Furthermore, the assessment of CSR from multiple levels in addition to the incorporation of multiple measures of CFP, provided other researchers with new information on the linkages among CSR-CFP with respect to the instrumental stakeholder approach. Interestingly, the results from the study revealed that a high level of investment in CSR for certain stakeholder groups did not produce the best financial outcomes in all cases. Specifically, this proved to be true with the CSR variables of *Environment*, *Product*, and *Corporate Governance*; since organizations with the lowest CSR performances in these categories had some of the best financial performances in terms of *Sales*, *Market Capitalization*, and *Market Capitalization Annual Growth*.

Organizations that emphasized CSR in what can be considered the “people” categories of *Community Relations*, *Diversity*, and *Employee Relations* were shown to outperform others across analyses sets that assessed the financial performances of *ROA*, *Sales*, *ROA Annual Growth*, *Market Capitalization*, and *Market Capitalization Annual Growth*. These findings have multiple implications for the methods in which persons both internal and external to the firm are treated. Perhaps having good *Employee Relations* and *Diversity* practices contributed to increased employee morale and productivity within organizations; while good *Community Relations* could have produced positive corporate images that translated into better financial outcomes. The latter three conclusions might also be viewed in support of enhanced corporate reputation effects leading to positive financial performance.

Results from the CFP analyses suggested that there was no one particular stakeholder group from which good investments consistently produced the best financial returns, nor was

there a measure of financial performance which responded consistently to the management of CSR. The latter was evidenced by the analyses on Sales, where organizations with the highest CSR performances in *Diversity* and *Employee Relations* and lowest CSR performances in *Product* and *Corporate Governance* produced the highest Sales. The analyses on *Market Capitalization* and *Market Capitalization Annual Growth* also resulted in differences in the level of CSR and financial performance among the various CSR categories; although these analyses sets both involved significant interactions with the variable of Year, so differences for these variables had to be judged with the additional consideration of time.

In accordance with instrumental stakeholder theory, which focuses on how managers of corporations can strategically manage various stakeholders, results revealed differences in financial outcomes based on the level of investments in CSR for different stakeholder groups. While the results did not provide the reasons for these differences, which were likely also based upon other external institutional and environmental forces; the evidence suggests that managers can strategically allocate resources for specific CSR investments toward desired outcomes in designated financial performance categories.

### *Implications for HRD*

The context of the current study was not on CSR as it specifically relates to the HRD profession; however, the close associations between the organizational contexts of CSR and HRD allow for connections to be made on a fundamental level. CSR is a set of practices in which an organization engages that promote the well-being of its valuable stakeholders, which include both internal (employees, managers, owners) and external (local community, environment, customers) constituents. HRD is a profession that specializes in learning and performance improvement efforts for individuals situated within organizations, extending to

related external institutional environments. Thus, as teachers of leaders and development, HRD professionals have an opportunity to actively engage in the CSR agendas of organizations. While the suggestion is not for HRD to be solely responsible for CSR, the idea is that standard HRD interventions are well suited for the widespread dissemination of social consciousness and business responsibility at multiple levels of a corporation. Specifically, the HRD role is probably best positioned to promote CSR practices within the categories of employee relations and diversity, although more research is needed to advance this discussion and substantiate or negate these conclusions. Brief mentions of how HRD can be further studied in relation to CSR are also provided in the following sections on *Recommendations for Research* and *Recommendations for Practice*.

### **Summary Statements**

The results from this study provided rich information about the CSR practices of large U.S.-based corporations over a lengthy time span, but they by no means captured the complete description of why, how, and to whom CSR practices were designated, nor did they resolve the lengthy debate on how CSR relates to CFP. The answer to such questions would require a lifetime dedicated to this line of research; and it is suspected that a clear answer might never be generated, given the multi-faceted nature of the construct with its not-so inherent characteristics and priorities associated with the construct that are likely to continue to shift over time. Regardless, the importance of further understanding CSR has substantial implications for not only the sustainability of corporations, but for those internally and externally associated with them; which one could argue involves the whole of society. Given the acceptance of the latter argument, it would be valuable, and almost certainly interesting to

continue the exploration of this phenomenon. Thus, recommendations for continuing to do so are provided within the following section.

### **Recommendations**

While there was a large array of variables employed in this study to assess CSR practices and CFP relative to differences in levels of CSR for U.S.-based corporations, the results only contributed to a portion of the knowledge that can be obtained and the research that can be performed in these areas. The extra knowledge that was provided by the study results has implications for both scholars interested in business and society, as well as managers, directors, and investors of corporations. The recommendations for each group are provided below.

#### *Recommendations for Research*

While this was a fairly comprehensive study on CSR and CFP, both constructs are multi-dimensional and still have many unexplored aspects – especially how they relate. The researcher recommends a continuance of exploration of CSP and CFP, through the examination of their relationships utilizing multiple variables from each construct as both independent and dependents. As previous researchers have suggested, it would be most beneficial to incorporate more control variables in assessing these relationships, namely industry and firm size. Another suggestion for future researchers is to employ a wider variety of variables to study possible determinants of CSR. Additionally, researchers should assess different time periods to determine how the latter might change through time, given the interdependence of corporations with their structural environments. Furthermore, researchers should delve deeper into identifying which CSR practices are valued by certain stakeholder

groups, and also examine different effects from the incorporation of CSR practices, other than financial performance.

In terms of developing the knowledge of how CSR can be related to HRD, the following research questions are suggested. How does the organizational structure of corporations support the role of HRD in managing CSR? What are the realities and challenges of incorporating CSR ideas into practice for HRD professionals? Do HRD professionals understand and/or value the principles of CSR?

### *Recommendations for Practice*

Based on the study findings and conclusions, several recommendations for managers were generated. Namely, for those interested in engaging in CSR, the researcher suggests the incorporation of CSR into the organization's framework of strategic management, so as to be able to align resources and mitigate the dimensions among the most important external and internal environmental factors with organizational resources (Porter & Kramer, 2006, others). Since CSR is multi-faceted and presents a wide array of practices in which corporations could engage, it would be optimal to establish a professional CSR employee position within the organization, so that person could work closely with key managers to balance the desires of multiple stakeholders and constantly re-evaluate and assess the strategies and devotions of CSR resources. In doing so, managers could seek a balance between maximizing profits and satisfying other corporate stakeholders, as there can be reciprocal benefits for both businesses and societies, which are ever interconnected. Given the potential of HR managers to contribute to the CSR focus of organizations through support and education, the engagement of these professionals is recommended for the dissemination of a socially responsible agenda in interested organizations.



### Summative Conclusion

As provided in the Abstract of this study, the following is an overview of this dissertation. Corporate social responsibility (CSR) has been debated since the 1930s, but the premises of the topic in regards to the what, how, why, and to whom it should be have remained in question. The relations between CSR and corporate financial performance (CFP) have emerged at the forefront of this debate, yet no unified theory has been reached. There also has been criticism by other scholars interested in CSR about overemphasizing CFP as a means of economic justification for what they believe to be a broader social issue, and have encouraged other avenues in CSR research that explore various motivations and outcomes associated with organizational stakeholders other than shareholders.

Following a descriptive and instrumental stakeholder theory approach, this study was used to explore CSR practices both dependently and independently. The study population consisted of a diverse array of 353 U.S.-based corporations, of which 80% represented the *Fortune 500*. Data for the study included eleven corporate classification variables that represented organizations' geographical location, industry, executive leadership dimensions, and financial health; six CFP variables that represented accounting and market-based measures; and seven CSR variables that represented the key organizational stakeholders of the local community and environment, employees, and customers. The corporate classification variables were utilized in the assessment of CSR performances; and CFP was assessed through the analyses of differences among levels of the CSR practices. All assessments were performed for organizations from the time period of 1991-2002.

Several results that assisted in informing descriptive and instrumental stakeholder theory were produced through the examination of previously used and under-explored

variables. Specifically, the study results included new insights regarding how several organizational characteristics related to their CSR practices. Study findings provided elaboration regarding how performance differences in seven key CSR categories affected six representative accounting and market-based measures of corporate financial performance. Implications for practice for organizational decision-makers were provided along with detailed information pertaining to how, with inferences as to why, firms engage in CSR. Additionally, associated financial outcomes from different levels of CSR implementation were reported.

Key findings from the study were that the CSR practices regarding employees and the environment remained stable over the twelve-year time period. Additionally, organizations' geographical location, financial health, and corporate leadership dimensions had an impact on CSR practices for various stakeholder groups, with the exception of employees. A high level of investment in CSR for certain stakeholder groups did not produce the best financial outcomes in all cases; however, organizations that emphasized CSR in the categories relative to the community and its employees outperformed others with respect to certain financial performance measures.

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## APPENDIX A

### List of Publications using KLD Data, Published by KLD



### *Bibliography of Selected Studies using KLD Data*

**The Academic Standard** Since KLD's launch in 1988 and publication of SOCRATES corporate rating data in 1993, over 90 peer-reviewed articles, representing a variety of academic fields (including finance, economics, management, and sociology) have used KLD STATS data to research companies' environmental, social and governance performance. Email inquiries to [KLDacademic@kld.com](mailto:KLDacademic@kld.com).

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**APPENDIX B****Operational Definitions of CSR Variables and Subcategories, from KLD Ratings****Environmental, Social and Governance  
Ratings Criteria****SOCRATES  
The Corporate Social Ratings Monitor<sup>SM</sup>**

KLD Research & Analytics, Inc.  
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Boston, Massachusetts 02210 USA  
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# Environmental, Social and Governance Ratings Criteria

## ENVIRONMENT

### STRENGTHS

**Beneficial Products & Services.** The company derives substantial revenues from the development of innovative products with environmental benefits, including remediation products, environmental services, or products that promote the efficient use of energy.

**Pollution Prevention.** The company has strong pollution prevention programs, including both emissions and toxic-use reduction programs.

**Recycling.** The company is either a substantial user of recycled materials in its manufacturing processes, or a major firm in the recycling industry.

**Alternative Fuels.** The company derives substantial revenues from alternative fuels. The term “alternative fuels” includes natural gas, wind power, and solar energy. The company has demonstrated an exceptional commitment to energy efficiency programs or the promotion of energy efficiency.

### CONCERNS

**Ozone Depleting Chemicals.** The company manufactures ozone depleting chemicals such as HCFCs, methyl chloroform, methylene chloride, or bromines.

**Agricultural Chemicals.** The company is a substantial producer of agricultural chemicals, including pesticides.

**Hazardous Waste.** The company has substantial liabilities for hazardous waste, or has recently paid significant fines or civil penalties for waste management violations.

**Regulatory Problems.** The company has recently paid substantial fines or civil penalties for, or it has a pattern of controversies regarding, violations of air, water, or other environmental regulations.

**Substantial Emissions.** The company’s emissions of toxic chemicals into the air and water from individual plants are notably high.

## COMMUNITY

### STRENGTHS

**Charitable or Generous Giving.** The company has been exceptionally generous in its giving.

**Innovative Giving.** The company has an innovative giving program that supports nonprofit organizations, particularly those promoting self-sufficiency among the economically disadvantaged.

**Support for Housing.** The company is a prominent participant in public/private partnerships that support housing initiatives for the economically disadvantaged.

### CONCERNS

**Negative Economic Impact.** The company’s actions have resulted in major controversies concerning the quality of life, tax base, or property values in the community.



## DIVERSITY

### STRENGTHS

**Board of Directors.** Women and/or minorities hold a significant proportion of the seats on the company's board of directors.

**CEO.** The company's chief executive officer is a woman or a member of a minority group.

**Employment of the Disabled.** The company has innovative hiring or other human resource programs for the disabled, or it has a superior reputation as an employer of the disabled.

**Promotion.** The company has made substantive progress in the promotion of women and/or minorities to senior executive line positions.

**Women & Minority Contracting.** The company has a strong record of purchasing and/or contracting with businesses owned by women or minorities.

**Work/Life Benefits.** The company has outstanding programs addressing employee work/life concerns.

### CONCERNS

**Controversies.** The company has either paid substantial fines or civil penalties as a result of diversity-related controversies, or has been involved in major controversies related to affirmative action issues.

## EMPLOYEE RELATIONS

### STRENGTHS

**Retirement Benefits.** The company has a strong retirement benefits program.

**Union Relations.** The company has taken exceptional steps to treat its unionized workforce fairly.

**Cash Profit Sharing.** The company has a cash profit-sharing program through which it has recently made distributions to a majority of its workforce.

**Employee Involvement.** The company strongly encourages employee involvement through active participation in management decision-making, and/or through ownership in the company by granting stock options to a majority of its employees.

### CONCERNS

**Union Relations.** The company has a history of notably poor union relations.

**Health and Safety.** The company recently has either paid substantial fines or civil penalties for willful violations of employee health and safety standards, or it has been otherwise involved in major health and safety controversies.

**Workforce Reductions.** The company has made significant reductions in its workforce in recent years.

## PRODUCT

### STRENGTHS

**Benefits to Economically Disadvantaged.** The company has as part of its basic mission the provision of products or services for the economically disadvantaged.

**Quality.** The company has a long-term, well-developed, company-wide quality program, or it has a quality program widely recognized as exceptional.

**R&D/Innovation.** The company leads its industry in the research and development of innovative products.

### CONCERNS

**Antitrust.** The company has recently paid substantial fines or civil penalties for antitrust violations such as price fixing, collusion, or predatory pricing, or is involved in major controversies or regulatory actions related to antitrust allegations.

**Marketing/Contracting Controversy.** The company has either been involved in a major marketing or contracting controversy, or has paid a substantial fine or civil penalty relating to advertising practices, consumer fraud, or government contracting.

**Safety.** The company has either paid substantial fines or civil penalties, or is involved in a major recent controversy or regulatory action, relating to the safety of its products or services.

## CORPORATE GOVERNANCE

### STRENGTHS

**Compensation.** The company pays a low level of compensation to its CEO or its board members.

**Ownership.** The company owns between 20% and 50% of another firm that has a positive environmental, social or governance record, or a firm with a positive environmental, social or governance record owns 20% or more of the company.

### CONCERNS

**Compensation.** The company pays a high level of compensation to its CEO or its board members.

**Ownership.** The company owns between 20% and 50% of another firm that has a negative environmental, social or governance record, or a firm with a negative environmental, social or governance record owns 20% or more of the company.

**Accounting.** The company is involved in significant accounting-related controversies.

## APPENDIX C

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses for U.S. Region of Headquarters

#### *General Linear Model of US Region of HQ for Community Relations*

##### Between-Subjects Factors

		Value Label	N
US Reg of HQ	1	Northeast	102
	2	Midwest	109
	3	South	88
	4	West	52

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	21925.080	11	1993.189	19.590	.000	.053	1.000
	Greenhouse-Geisser	21925.080	4.128	5310.756	19.590	.000	.053	1.000
	Huynh-Feldt	21925.080	4.220	5194.940	19.590	.000	.053	1.000
	Lower-bound	21925.080	1.000	21925.080	19.590	.000	.053	.993
year * reghq	Sphericity Assumed	3174.425	33	96.195	.945	.557	.008	.894
	Greenhouse-Geisser	3174.425	12.385	256.306	.945	.502	.008	.577
	Huynh-Feldt	3174.425	12.661	250.717	.945	.503	.008	.584
	Lower-bound	3174.425	3.000	1058.142	.945	.419	.008	.258
Error(year)	Sphericity Assumed	388367.721	3817	101.747				
	Greenhouse-Geisser	388367.721	1432.565	271.100				
	Huynh-Feldt	388367.721	1464.502	265.187				

Lower-bound	388367.721	347.000	1119.215				
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	18604.416	1	18604.416	41.710	.000	.107	1.000
	Quadratic	749.685	1	749.685	4.603	.033	.013	.571
	Cubic	1790.188	1	1790.188	16.964	.000	.047	.984
year * reghq	Linear	1206.353	3	402.118	.902	.441	.008	.247
	Quadratic	842.951	3	280.984	1.725	.161	.015	.450
	Cubic	262.685	3	87.562	.830	.478	.007	.230
Error(year)	Linear	154778.451	347	446.047				
	Quadratic	56514.658	347	162.866				
	Cubic	36617.423	347	105.526				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	12411.293	3	4137.098	1.866	.135	.016	.483
Error	769310.943	347	2217.034				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	51.166	1.346	48.519	53.813
Midwest	50.422	1.302	47.861	52.983
South	46.783	1.449	43.933	49.633
West	50.131	1.885	46.424	53.839

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Reg of HQ (J) US Reg of HQ		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	.744	1.873	.999	-4.211	5.699
	South	4.383	1.978	.153	-.850	9.616
	West	1.034	2.316	.998	-5.094	7.163
Midwest	Northeast	-.744	1.873	.999	-5.699	4.211
	South	3.639	1.948	.321	-1.516	8.793
	West	.291	2.291	1.000	-5.771	6.352
South	Northeast	-4.383	1.978	.153	-9.616	.850
	Midwest	-3.639	1.948	.321	-8.793	1.516
	West	-3.348	2.377	.649	-9.639	2.943
West	Northeast	-1.034	2.316	.998	-7.163	5.094
	Midwest	-.291	2.291	1.000	-6.352	5.771
	South	3.348	2.377	.649	-2.943	9.639

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1034.274	3	344.758	1.866	.135	.016	.483
Error	64109.245	347	184.753				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.059	.930	49.230	52.889
2	52.272	.981	50.343	54.201
3	53.453	1.090	51.310	55.596
4	51.558	.978	49.635	53.481
5	51.447	.977	49.526	53.367
6	50.194	.893	48.438	51.950
7	50.309	.922	48.496	52.122
8	48.179	.892	46.424	49.935
9	47.719	.905	45.939	49.499
10	46.682	.825	45.060	48.304
11	46.092	.824	44.471	47.713
12	46.544	.889	44.795	48.293

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.213	.480	.550	-2.841	.416
	3	-2.394(*)	.683	.033	-4.708	-.079
	4	-.498	.797	1.000	-3.202	2.205
	5	-.387	.884	1.000	-3.386	2.612
	6	.866	.895	1.000	-2.168	3.899
	7	.751	.901	1.000	-2.303	3.805
	8	2.880	.911	.107	-.209	5.970
	9	3.341(*)	.910	.018	.254	6.428
	10	4.378(*)	.929	.000	1.227	7.529
	11	4.968(*)	.941	.000	1.778	8.157
	12	4.516(*)	.963	.000	1.251	7.780
2	1	1.213	.480	.550	-.416	2.841
	3	-1.181	.516	.779	-2.930	.568
	4	.714	.743	1.000	-1.807	3.235
	5	.825	.848	1.000	-2.051	3.702
	6	2.078	.898	.757	-.966	5.122
	7	1.963	.921	.896	-1.159	5.086
	8	4.093(*)	.928	.001	.944	7.241
	9	4.553(*)	.938	.000	1.372	7.735
	10	5.590(*)	.956	.000	2.348	8.833
	11	6.180(*)	.977	.000	2.868	9.493
	12	5.728(*)	.996	.000	2.349	9.107
3	1	2.394(*)	.683	.033	.079	4.708
	2	1.181	.516	.779	-.568	2.930
	4	1.895	.665	.264	-.360	4.151
	5	2.006	.843	.694	-.851	4.864
	6	3.259(*)	.915	.027	.158	6.360
	7	3.144	.943	.060	-.053	6.342
	8	5.274(*)	.952	.000	2.045	8.502

4	9	5.734(*)	.968	.000	2.452	9.017
	10	6.771(*)	.998	.000	3.388	10.155
	11	7.361(*)	1.028	.000	3.875	10.848
	12	6.909(*)	1.059	.000	3.317	10.502
	1	.498	.797	1.000	-2.205	3.202
	2	-.714	.743	1.000	-3.235	1.807
	3	-1.895	.665	.264	-4.151	.360
	5	.111	.610	1.000	-1.956	2.178
	6	1.364	.765	.994	-1.230	3.958
	7	1.249	.807	1.000	-1.488	3.986
	8	3.379(*)	.840	.005	.531	6.226
	9	3.839(*)	.846	.001	.969	6.709
5	10	4.876(*)	.869	.000	1.930	7.823
	11	5.466(*)	.903	.000	2.406	8.527
	12	5.014(*)	.946	.000	1.807	8.221
	1	.387	.884	1.000	-2.612	3.386
	2	-.825	.848	1.000	-3.702	2.051
	3	-2.006	.843	.694	-4.864	.851
	4	-.111	.610	1.000	-2.178	1.956
	6	1.253	.611	.937	-.819	3.325
	7	1.138	.727	1.000	-1.328	3.604
	8	3.267(*)	.799	.004	.557	5.977
	9	3.728(*)	.859	.001	.815	6.641
	10	4.765(*)	.864	.000	1.835	7.695
6	11	5.355(*)	.874	.000	2.392	8.318
	12	4.903(*)	.891	.000	1.880	7.926
	1	-.866	.895	1.000	-3.899	2.168
	2	-2.078	.898	.757	-5.122	.966
	3	-3.259(*)	.915	.027	-6.360	-.158
	4	-1.364	.765	.994	-3.958	1.230
	5	-1.253	.611	.937	-3.325	.819
	7	-.115	.528	1.000	-1.906	1.676
	8	2.014	.651	.132	-.194	4.223



7	9	2.475	.739	.057	-.029	4.979
	10	3.512(*)	.790	.001	.834	6.191
	11	4.102(*)	.793	.000	1.415	6.790
	12	3.650(*)	.779	.000	1.009	6.291
	1	-.751	.901	1.000	-3.805	2.303
	2	-1.963	.921	.896	-5.086	1.159
	3	-3.144	.943	.060	-6.342	.053
	4	-1.249	.807	1.000	-3.986	1.488
	5	-1.138	.727	1.000	-3.604	1.328
	6	.115	.528	1.000	-1.676	1.906
	8	2.129(*)	.540	.006	.299	3.960
	9	2.590(*)	.639	.004	.423	4.757
8	10	3.627(*)	.713	.000	1.211	6.043
	11	4.217(*)	.733	.000	1.730	6.704
	12	3.765(*)	.692	.000	1.419	6.111
	1	-2.880	.911	.107	-5.970	.209
	2	-4.093(*)	.928	.001	-7.241	-.944
	3	-5.274(*)	.952	.000	-8.502	-2.045
	4	-3.379(*)	.840	.005	-6.226	-.531
	5	-3.267(*)	.799	.004	-5.977	-.557
	6	-2.014	.651	.132	-4.223	.194
	7	-2.129(*)	.540	.006	-3.960	-.299
	9	.461	.377	1.000	-.819	1.741
	10	1.498	.550	.364	-.368	3.364
9	11	2.088(*)	.578	.023	.128	4.047
	12	1.636	.580	.287	-.333	3.604
	1	-3.341(*)	.910	.018	-6.428	-.254
	2	-4.553(*)	.938	.000	-7.735	-1.372
	3	-5.734(*)	.968	.000	-9.017	-2.452
	4	-3.839(*)	.846	.001	-6.709	-.969
	5	-3.728(*)	.859	.001	-6.641	-.815
	6	-2.475	.739	.057	-4.979	.029
	7	-2.590(*)	.639	.004	-4.757	-.423

10	8	-.461	.377	1.000	-1.741	.819
	10	1.037	.456	.791	-.508	2.582
	11	1.627	.542	.174	-.212	3.466
	12	1.175	.560	.914	-.723	3.073
	1	-4.378(*)	.929	.000	-7.529	-1.227
	2	-5.590(*)	.956	.000	-8.833	-2.348
	3	-6.771(*)	.998	.000	-10.155	-3.388
	4	-4.876(*)	.869	.000	-7.823	-1.930
	5	-4.765(*)	.864	.000	-7.695	-1.835
	6	-3.512(*)	.790	.001	-6.191	-.834
	7	-3.627(*)	.713	.000	-6.043	-1.211
	8	-1.498	.550	.364	-3.364	.368
11	9	-1.037	.456	.791	-2.582	.508
	11	.590	.328	.993	-.521	1.701
	12	.138	.511	1.000	-1.595	1.870
	1	-4.968(*)	.941	.000	-8.157	-1.778
	2	-6.180(*)	.977	.000	-9.493	-2.868
	3	-7.361(*)	1.028	.000	-10.848	-3.875
	4	-5.466(*)	.903	.000	-8.527	-2.406
	5	-5.355(*)	.874	.000	-8.318	-2.392
	6	-4.102(*)	.793	.000	-6.790	-1.415
	7	-4.217(*)	.733	.000	-6.704	-1.730
	8	-2.088(*)	.578	.023	-4.047	-.128
	9	-1.627	.542	.174	-3.466	.212
12	10	-.590	.328	.993	-1.701	.521
	12	-.452	.388	1.000	-1.767	.863
	1	-4.516(*)	.963	.000	-7.780	-1.251
	2	-5.728(*)	.996	.000	-9.107	-2.349
	3	-6.909(*)	1.059	.000	-10.502	-3.317
	4	-5.014(*)	.946	.000	-8.221	-1.807
	5	-4.903(*)	.891	.000	-7.926	-1.880
	6	-3.650(*)	.779	.000	-6.291	-1.009
	7	-3.765(*)	.692	.000	-6.111	-1.419

8	-1.636	.580	.287	-3.604	.333
9	-1.175	.560	.914	-3.073	.723
10	-.138	.511	1.000	-1.870	1.595
11	.452	.388	1.000	-.863	1.767

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	53.039	1.655	49.785	56.294
	2	54.353	1.745	50.921	57.785
	3	55.069	1.938	51.256	58.881
	4	52.686	1.739	49.266	56.107
	5	52.765	1.737	49.348	56.181
	6	50.480	1.588	47.357	53.604
	7	51.010	1.640	47.785	54.235
	8	50.480	1.587	47.358	53.603
	9	50.304	1.610	47.137	53.470
	10	47.745	1.467	44.859	50.631
	11	47.588	1.466	44.705	50.472
	12	48.471	1.582	45.359	51.582
Midwest	1	50.266	1.601	47.118	53.414
	2	51.844	1.688	48.524	55.164
	3	53.578	1.875	49.890	57.266
	4	52.514	1.682	49.205	55.823
	5	52.266	1.680	48.961	55.571
	6	51.101	1.536	48.080	54.122
	7	51.358	1.586	48.238	54.478
	8	49.798	1.536	46.778	52.819

South	9	48.193	1.557	45.130	51.256
	10	47.633	1.419	44.842	50.424
	11	47.642	1.418	44.853	50.432
	12	48.872	1.530	45.862	51.881
	1	50.625	1.781	47.121	54.129
	2	51.545	1.878	47.851	55.240
	3	50.705	2.087	46.600	54.809
	4	48.455	1.872	44.772	52.137
	5	47.852	1.870	44.174	51.531
	6	47.136	1.710	43.774	50.499
	7	46.636	1.765	43.164	50.109
	8	44.977	1.709	41.616	48.339
West	9	43.898	1.733	40.489	47.307
	10	43.580	1.580	40.473	46.686
	11	42.886	1.578	39.782	45.991
	12	43.102	1.703	39.753	46.452
	1	50.308	2.317	45.750	54.866
	2	51.346	2.444	46.540	56.152
	3	54.462	2.715	49.122	59.801
	4	52.577	2.436	47.786	57.368
	5	52.904	2.433	48.119	57.689
	6	52.058	2.224	47.684	56.432
	7	52.231	2.297	47.714	56.748
	8	47.462	2.223	43.089	51.834
	9	48.481	2.255	44.046	52.916
	10	47.769	2.055	43.728	51.811
	11	46.250	2.053	42.211	50.289
	12	45.731	2.215	41.373	50.088

### ***General Linear Model of US Region of HQ for Diversity***

**Between-Subjects Factors**

		Value Label	N
US	1	Northeast	102
Reg of	2	Midwest	109
HQ	3	South	88
	4	West	52

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	50105.894	11	4555.081	54.396	.000	.136	1.000
	Greenhouse-Geisser	50105.894	4.274	11722.799	54.396	.000	.136	1.000
	Huynh-Feldt	50105.894	4.372	11461.734	54.396	.000	.136	1.000
	Lower-bound	50105.894	1.000	50105.894	54.396	.000	.136	1.000
year * reghq	Sphericity Assumed	3717.131	33	112.640	1.345	.090	.011	.983
	Greenhouse-Geisser	3717.131	12.823	289.887	1.345	.181	.011	.781
	Huynh-Feldt	3717.131	13.115	283.432	1.345	.179	.011	.789
	Lower-bound	3717.131	3.000	1239.044	1.345	.260	.011	.358
Error(year)	Sphericity Assumed	319630.602	3817	83.739				
	Greenhouse-Geisser	319630.602	1483.156	215.507				
	Huynh-Feldt	319630.602	1516.938	210.708				
	Lower-bound	319630.602	347.000	921.126				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	48166.913	1	48166.913	135.212	.000	.280	1.000
	Quadratic	1385.153	1	1385.153	8.347	.004	.023	.822

year * reghq	Cubic	154.763	1	154.763	2.126	.146	.006	.307
	Linear	2415.313	3	805.104	2.260	.081	.019	.569
	Quadratic	253.643	3	84.548	.509	.676	.004	.154
Error(year)	Cubic	27.364	3	9.121	.125	.945	.001	.073
	Linear	123613.094	347	356.234				
	Quadratic	57584.157	347	165.949				
	Cubic	25254.474	347	72.779				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	21363.170	3	7121.057	3.360	.019	.028	.760
Error	735428.253	347	2119.390				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

#### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	53.055	1.316	50.467	55.643
Midwest	49.612	1.273	47.109	52.116
South	47.017	1.417	44.231	49.803
West	50.835	1.843	47.210	54.460

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) US Reg of HQ	(J) US Reg of HQ				Upper Bound	Lower Bound
Northeast	Midwest	3.442	1.831	.314	-1.402	8.287
	South	6.038(*)	1.934	.012	.921	11.154
	West	2.220	2.265	.908	-3.772	8.212
Midwest	Northeast	-3.442	1.831	.314	-8.287	1.402
	South	2.595	1.905	.682	-2.444	7.635
	West	-1.223	2.240	.995	-7.149	4.704
South	Northeast	-6.038(*)	1.934	.012	-11.154	-.921
	Midwest	-2.595	1.905	.682	-7.635	2.444
	West	-3.818	2.325	.474	-9.969	2.333
West	Northeast	-2.220	2.265	.908	-8.212	3.772
	Midwest	1.223	2.240	.995	-4.704	7.149
	South	3.818	2.325	.474	-2.333	9.969

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1780.264	3	593.421	3.360	.019	.028	.760
Error	61285.688	347	176.616				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.003	.517	42.986	45.019
2	44.879	.584	43.731	46.028
3	45.627	.659	44.332	46.923
4	48.273	.821	46.658	49.887
5	49.382	.842	47.726	51.038
6	49.946	.916	48.145	51.747
7	51.262	.947	49.400	53.124
8	52.269	.974	50.353	54.186
9	53.356	1.020	51.350	55.362
10	53.852	1.040	51.806	55.897
11	54.327	1.064	52.234	56.419
12	54.382	1.028	52.359	56.405

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.877(*)	.246	.027	-1.709	-.044
	3	-1.625(*)	.393	.003	-2.957	-.292
	4	-4.270(*)	.604	.000	-6.319	-2.221
	5	-5.379(*)	.638	.000	-7.542	-3.216
	6	-5.943(*)	.764	.000	-8.535	-3.351
	7	-7.259(*)	.809	.000	-10.004	-4.514
	8	-8.267(*)	.837	.000	-11.105	-5.428



2	9	-9.353(*)	.896	.000	-12.391	-6.316
	10	-9.849(*)	.898	.000	-12.896	-6.803
	11	-10.324(*)	.910	.000	-13.408	-7.240
	12	-10.380(*)	.884	.000	-13.377	-7.382
	1	.877(*)	.246	.027	.044	1.709
	3	-.748	.312	.679	-1.807	.310
	4	-3.394(*)	.559	.000	-5.290	-1.498
	5	-4.503(*)	.600	.000	-6.537	-2.469
	6	-5.066(*)	.713	.000	-7.484	-2.649
	7	-6.383(*)	.752	.000	-8.934	-3.831
	8	-7.390(*)	.774	.000	-10.016	-4.764
	9	-8.477(*)	.846	.000	-11.347	-5.607
3	10	-8.973(*)	.845	.000	-11.838	-6.107
	11	-9.447(*)	.854	.000	-12.345	-6.550
	12	-9.503(*)	.834	.000	-12.332	-6.674
	1	1.625(*)	.393	.003	.292	2.957
	2	.748	.312	.679	-.310	1.807
	4	-2.645(*)	.505	.000	-4.359	-.932
	5	-3.755(*)	.583	.000	-5.731	-1.778
	6	-4.318(*)	.712	.000	-6.732	-1.904
	7	-5.634(*)	.756	.000	-8.198	-3.071
	8	-6.642(*)	.750	.000	-9.185	-4.099
	9	-7.729(*)	.826	.000	-10.529	-4.929
	10	-8.224(*)	.839	.000	-11.070	-5.379
4	11	-8.699(*)	.830	.000	-11.514	-5.884
	12	-8.755(*)	.816	.000	-11.521	-5.989
	1	4.270(*)	.604	.000	2.221	6.319
	2	3.394(*)	.559	.000	1.498	5.290
	3	2.645(*)	.505	.000	.932	4.359
	5	-1.109	.460	.665	-2.669	.451
	6	-1.673	.634	.440	-3.824	.479
	7	-2.989(*)	.732	.004	-5.472	-.506
	8	-3.997(*)	.723	.000	-6.450	-1.544

5	9	-5.083(*)	.806	.000	-7.817	-2.349
	10	-5.579(*)	.853	.000	-8.472	-2.686
	11	-6.054(*)	.862	.000	-8.978	-3.129
	12	-6.110(*)	.842	.000	-8.964	-3.255
	1	5.379(*)	.638	.000	3.216	7.542
	2	4.503(*)	.600	.000	2.469	6.537
	3	3.755(*)	.583	.000	1.778	5.731
	4	1.109	.460	.665	-.451	2.669
	6	-.564	.507	1.000	-2.284	1.157
	7	-1.880	.631	.186	-4.021	.261
	8	-2.888(*)	.661	.001	-5.128	-.647
	9	-3.974(*)	.733	.000	-6.460	-1.488
6	10	-4.470(*)	.818	.000	-7.243	-1.696
	11	-4.945(*)	.834	.000	-7.773	-2.116
	12	-5.000(*)	.808	.000	-7.741	-2.260
	1	5.943(*)	.764	.000	3.351	8.535
	2	5.066(*)	.713	.000	2.649	7.484
	3	4.318(*)	.712	.000	1.904	6.732
	4	1.673	.634	.440	-.479	3.824
	5	.564	.507	1.000	-1.157	2.284
	7	-1.316	.476	.327	-2.930	.298
	8	-2.324(*)	.617	.013	-4.417	-.231
	9	-3.410(*)	.754	.001	-5.966	-.855
	10	-3.906(*)	.857	.000	-6.811	-1.001
7	11	-4.381(*)	.889	.000	-7.394	-1.367
	12	-4.437(*)	.839	.000	-7.280	-1.593
	1	7.259(*)	.809	.000	4.514	10.004
	2	6.383(*)	.752	.000	3.831	8.934
	3	5.634(*)	.756	.000	3.071	8.198
	4	2.989(*)	.732	.004	.506	5.472
	5	1.880	.631	.186	-.261	4.021
	6	1.316	.476	.327	-.298	2.930
	8	-1.008	.488	.931	-2.663	.648

8	9	-2.094	.669	.118	-4.364	.175
	10	-2.590	.790	.073	-5.267	.087
	11	-3.065(*)	.832	.018	-5.887	-.243
	12	-3.120(*)	.781	.005	-5.767	-.474
	1	8.267(*)	.837	.000	5.428	11.105
	2	7.390(*)	.774	.000	4.764	10.016
	3	6.642(*)	.750	.000	4.099	9.185
	4	3.997(*)	.723	.000	1.544	6.450
	5	2.888(*)	.661	.001	.647	5.128
	6	2.324(*)	.617	.013	.231	4.417
	7	1.008	.488	.931	-.648	2.663
	9	-1.087	.512	.902	-2.823	.650
9	10	-1.582	.674	.726	-3.867	.702
	11	-2.057	.723	.266	-4.507	.393
	12	-2.113	.706	.178	-4.507	.282
	1	9.353(*)	.896	.000	6.316	12.391
	2	8.477(*)	.846	.000	5.607	11.347
	3	7.729(*)	.826	.000	4.929	10.529
	4	5.083(*)	.806	.000	2.349	7.817
	5	3.974(*)	.733	.000	1.488	6.460
	6	3.410(*)	.754	.001	.855	5.966
	7	2.094	.669	.118	-.175	4.364
	8	1.087	.512	.902	-.650	2.823
	10	-.496	.558	1.000	-2.389	1.397
10	11	-.971	.679	1.000	-3.274	1.333
	12	-1.026	.647	1.000	-3.220	1.167
	1	9.849(*)	.898	.000	6.803	12.896
	2	8.973(*)	.845	.000	6.107	11.838
	3	8.224(*)	.839	.000	5.379	11.070
	4	5.579(*)	.853	.000	2.686	8.472
	5	4.470(*)	.818	.000	1.696	7.243
	6	3.906(*)	.857	.000	1.001	6.811
	7	2.590	.790	.073	-.087	5.267

11	8	1.582	.674	.726	-.702	3.867
	9	.496	.558	1.000	-1.397	2.389
	11	-.475	.479	1.000	-2.099	1.149
	12	-.531	.575	1.000	-2.480	1.419
	1	10.324(*)	.910	.000	7.240	13.408
	2	9.447(*)	.854	.000	6.550	12.345
	3	8.699(*)	.830	.000	5.884	11.514
	4	6.054(*)	.862	.000	3.129	8.978
	5	4.945(*)	.834	.000	2.116	7.773
	6	4.381(*)	.889	.000	1.367	7.394
	7	3.065(*)	.832	.018	.243	5.887
12	8	2.057	.723	.266	-.393	4.507
	9	.971	.679	1.000	-1.333	3.274
	10	.475	.479	1.000	-1.149	2.099
	12	-.056	.412	1.000	-1.454	1.343
	1	10.380(*)	.884	.000	7.382	13.377
	2	9.503(*)	.834	.000	6.674	12.332
	3	8.755(*)	.816	.000	5.989	11.521
	4	6.110(*)	.842	.000	3.255	8.964
	5	5.000(*)	.808	.000	2.260	7.741
	6	4.437(*)	.839	.000	1.593	7.280
	7	3.120(*)	.781	.005	.474	5.767
	8	2.113	.706	.178	-.282	4.507
	9	1.026	.647	1.000	-1.167	3.220
	10	.531	.575	1.000	-1.419	2.480
	11	.056	.412	1.000	-1.343	1.454

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	45.843	.919	44.036	47.651
	2	46.539	1.039	44.496	48.582
	3	47.833	1.172	45.529	50.138
	4	50.373	1.460	47.500	53.245
	5	51.647	1.498	48.701	54.593
	6	52.637	1.629	49.434	55.841
	7	53.824	1.684	50.511	57.136
	8	54.422	1.733	51.013	57.830
	9	56.696	1.814	53.127	60.265
	10	58.402	1.850	54.763	62.041
	11	59.922	1.892	56.200	63.643
	12	58.520	1.829	54.921	62.118
Midwest	1	44.046	.889	42.297	45.794
	2	44.817	1.005	42.840	46.793
	3	45.844	1.133	43.615	48.073
	4	48.367	1.413	45.588	51.146
	5	48.661	1.449	45.811	51.511
	6	49.927	1.576	46.828	53.026
	7	51.440	1.629	48.236	54.645
	8	52.239	1.677	48.941	55.536
	9	52.202	1.755	48.750	55.654
	10	52.716	1.790	49.195	56.236
	11	52.798	1.830	49.198	56.398
	12	52.294	1.770	48.813	55.774
South	1	42.102	.989	40.156	44.048
	2	42.545	1.118	40.346	44.745
	3	42.909	1.261	40.428	45.390
	4	45.659	1.572	42.567	48.751
	5	46.932	1.613	43.760	50.104
	6	47.545	1.754	44.096	50.994

West	7	48.841	1.813	45.275	52.407
	8	48.841	1.866	45.171	52.511
	9	48.545	1.953	44.703	52.387
	10	49.943	1.992	46.025	53.861
	11	50.125	2.037	46.118	54.132
	12	50.216	1.970	46.342	54.090
	1	44.019	1.287	41.488	46.551
	2	45.615	1.455	42.754	48.477
	3	45.923	1.641	42.696	49.150
	4	48.692	2.045	44.669	52.715
	5	50.288	2.098	46.162	54.415
	6	49.673	2.281	45.186	54.160
	7	50.942	2.359	46.303	55.581
	8	53.577	2.427	48.803	58.351
	9	55.981	2.541	50.983	60.979
	10	54.346	2.591	49.249	59.443
	11	54.462	2.650	49.249	59.674
	12	56.500	2.562	51.460	61.540

### ***General Linear Model of US Region of HQ for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
US Reg of HQ	1	Northeast	102
	2	Midwest	109
	3	South	88
	4	West	52

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	12150.536	11	1104.594	10.087	.000	.028	1.000
	Greenhouse-Geisser	12150.536	3.872	3137.877	10.087	.000	.028	1.000
	Huynh-Feldt	12150.536	3.955	3072.022	10.087	.000	.028	1.000
	Lower-bound	12150.536	1.000	12150.536	10.087	.002	.028	.886
year * reghq	Sphericity Assumed	2553.974	33	77.393	.707	.893	.006	.746
	Greenhouse-Geisser	2553.974	11.617	219.855	.707	.741	.006	.415
	Huynh-Feldt	2553.974	11.866	215.241	.707	.744	.006	.421
	Lower-bound	2553.974	3.000	851.325	.707	.549	.006	.200
Error(year)	Sphericity Assumed	417983.083	3817	109.506				
	Greenhouse-Geisser	417983.083	1343.659	311.078				
	Huynh-Feldt	417983.083	1372.463	304.550				
	Lower-bound	417983.083	347.000	1204.562				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	7229.983	1	7229.983	14.247	.000	.039	.964
	Quadratic	4121.926	1	4121.926	20.702	.000	.056	.995
	Cubic	22.583	1	22.583	.188	.665	.001	.072
year * reghq	Linear	761.037	3	253.679	.500	.683	.004	.152
	Quadratic	155.725	3	51.908	.261	.854	.002	.100
	Cubic	371.441	3	123.814	1.031	.379	.009	.279
Error(year)	Linear	176092.754	347	507.472				
	Quadratic	69090.275	347	199.107				
	Cubic	41684.034	347	120.127				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	7421.641	3	2473.880	1.195	.312	.010	.320
Error	718618.208	347	2070.946				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

#### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	49.111	1.301	46.553	51.669
Midwest	51.859	1.258	49.384	54.333
South	48.661	1.400	45.907	51.415
West	50.269	1.822	46.686	53.852

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Reg of HQ	(J) US Reg of HQ	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
Northeast	Midwest	-2.747	1.810	.566	-7.536	2.041
	South	.450	1.911	1.000	-4.607	5.508
	West	-1.158	2.238	.996	-7.081	4.765
Midwest	Northeast	2.747	1.810	.566	-2.041	7.536
	South	3.198	1.883	.433	-1.784	8.179
	West	1.589	2.214	.979	-4.269	7.448
South	Northeast	-.450	1.911	1.000	-5.508	4.607
	Midwest	-3.198	1.883	.433	-8.179	1.784
	West	-1.608	2.298	.981	-7.689	4.472
West	Northeast	1.158	2.238	.996	-4.765	7.081
	Midwest	-1.589	2.214	.979	-7.448	4.269
	South	1.608	2.298	.981	-4.472	7.689

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	618.470	3	206.157	1.195	.312	.010	.320
Error	59884.851	347	172.579				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
1	45.530	.675	44.202	46.858
2	47.787	.774	46.264	49.310
3	48.650	.809	47.060	50.241
4	49.877	.862	48.182	51.573
5	50.959	.902	49.185	52.733
6	49.882	.884	48.143	51.622
7	50.951	.957	49.069	52.834
8	51.557	1.029	49.533	53.581
9	51.530	1.013	49.539	53.522
10	51.900	1.013	49.908	53.892
11	50.805	1.006	48.827	52.783
12	50.271	1.031	48.243	52.299

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-2.257(*)	.528	.002	-4.048	-.466
	3	-3.120(*)	.616	.000	-5.210	-1.031
	4	-4.347(*)	.812	.000	-7.101	-1.593
	5	-5.429(*)	.819	.000	-8.208	-2.650
	6	-4.352(*)	.812	.000	-7.106	-1.599
	7	-5.422(*)	.871	.000	-8.376	-2.467
	8	-6.027(*)	.971	.000	-9.320	-2.735
	9	-6.001(*)	.958	.000	-9.248	-2.753
	10	-6.370(*)	1.022	.000	-9.835	-2.905
	11	-5.275(*)	1.032	.000	-8.773	-1.777
	12	-4.741(*)	1.055	.001	-8.317	-1.165
2	1	2.257(*)	.528	.002	.466	4.048

3	3	-.863	.483	.994	-2.501	.774
	4	-2.090	.742	.289	-4.608	.427
	5	-3.172(*)	.784	.004	-5.830	-.513
	6	-2.095	.804	.470	-4.823	.632
	7	-3.164(*)	.867	.020	-6.106	-.223
	8	-3.770(*)	.963	.007	-7.035	-.506
	9	-3.743(*)	.957	.007	-6.988	-.499
	10	-4.113(*)	1.016	.004	-7.557	-.669
	11	-3.018	1.030	.213	-6.512	.476
	12	-2.484	1.056	.722	-6.065	1.096
	1	3.120(*)	.616	.000	1.031	5.210
	2	.863	.483	.994	-.774	2.501
4	4	-1.227	.604	.945	-3.274	.820
	5	-2.308	.741	.123	-4.821	.205
	6	-1.232	.794	1.000	-3.925	1.461
	7	-2.301	.835	.335	-5.132	.530
	8	-2.907	.922	.109	-6.033	.219
	9	-2.880	.906	.101	-5.951	.191
	10	-3.250(*)	.948	.044	-6.465	-.034
	11	-2.155	.965	.827	-5.427	1.118
	12	-1.621	.989	.999	-4.975	1.733
	1	4.347(*)	.812	.000	1.593	7.101
	2	2.090	.742	.289	-.427	4.608
	3	1.227	.604	.945	-.820	3.274
5	5	-1.082	.553	.969	-2.955	.792
	6	-.005	.775	1.000	-2.633	2.623
	7	-1.074	.821	1.000	-3.859	1.711
	8	-1.680	.914	.990	-4.779	1.419
	9	-1.653	.910	.992	-4.738	1.432
	10	-2.023	.982	.933	-5.353	1.308
	11	-.928	.994	1.000	-4.297	2.442
	12	-.394	1.019	1.000	-3.848	3.060
	1	5.429(*)	.819	.000	2.650	8.208

6	2	3.172(*)	.784	.004	.513	5.830
	3	2.308	.741	.123	-.205	4.821
	4	1.082	.553	.969	-.792	2.955
	6	1.076	.643	.999	-1.105	3.258
	7	.007	.761	1.000	-2.575	2.589
	8	-.598	.909	1.000	-3.683	2.486
	9	-.572	.899	1.000	-3.621	2.477
	10	-.941	1.006	1.000	-4.352	2.470
	11	.154	1.035	1.000	-3.357	3.664
	12	.688	1.074	1.000	-2.953	4.328
	1	4.352(*)	.812	.000	1.599	7.106
	2	2.095	.804	.470	-.632	4.823
7	3	1.232	.794	1.000	-1.461	3.925
	4	.005	.775	1.000	-2.623	2.633
	5	-1.076	.643	.999	-3.258	1.105
	7	-1.069	.461	.754	-2.633	.495
	8	-1.675	.662	.546	-3.921	.571
	9	-1.648	.711	.754	-4.059	.763
	10	-2.018	.841	.676	-4.868	.833
	11	-.923	.896	1.000	-3.962	2.116
	12	-.389	.927	1.000	-3.531	2.754
	1	5.422(*)	.871	.000	2.467	8.376
	2	3.164(*)	.867	.020	.223	6.106
	3	2.301	.835	.335	-.530	5.132
8	4	1.074	.821	1.000	-1.711	3.859
	5	-.007	.761	1.000	-2.589	2.575
	6	1.069	.461	.754	-.495	2.633
	8	-.606	.522	1.000	-2.375	1.163
	9	-.579	.610	1.000	-2.649	1.491
	10	-.949	.774	1.000	-3.573	1.676
	11	.146	.843	1.000	-2.712	3.004
	12	.680	.889	1.000	-2.336	3.696
	1	6.027(*)	.971	.000	2.735	9.320

9	2	3.770(*)	.963	.007	.506	7.035
	3	2.907	.922	.109	-.219	6.033
	4	1.680	.914	.990	-1.419	4.779
	5	.598	.909	1.000	-2.486	3.683
	6	1.675	.662	.546	-.571	3.921
	7	.606	.522	1.000	-1.163	2.375
	9	.027	.416	1.000	-1.384	1.438
	10	-.343	.636	1.000	-2.499	1.814
	11	.752	.713	1.000	-1.666	3.170
	12	1.286	.769	.999	-1.320	3.893
	1	6.001(*)	.958	.000	2.753	9.248
	2	3.743(*)	.957	.007	.499	6.988
10	3	2.880	.906	.101	-.191	5.951
	4	1.653	.910	.992	-1.432	4.738
	5	.572	.899	1.000	-2.477	3.621
	6	1.648	.711	.754	-.763	4.059
	7	.579	.610	1.000	-1.491	2.649
	8	-.027	.416	1.000	-1.438	1.384
	10	-.369	.534	1.000	-2.180	1.441
	11	.725	.639	1.000	-1.442	2.893
	12	1.259	.704	.994	-1.129	3.648
	1	6.370(*)	1.022	.000	2.905	9.835
	2	4.113(*)	1.016	.004	.669	7.557
	3	3.250(*)	.948	.044	.034	6.465
11	4	2.023	.982	.933	-1.308	5.353
	5	.941	1.006	1.000	-2.470	4.352
	6	2.018	.841	.676	-.833	4.868
	7	.949	.774	1.000	-1.676	3.573
	8	.343	.636	1.000	-1.814	2.499
	9	.369	.534	1.000	-1.441	2.180
	11	1.095	.386	.273	-.213	2.403
	12	1.629	.491	.064	-.035	3.293
	1	5.275(*)	1.032	.000	1.777	8.773

12	2	3.018	1.030	.213	-.476	6.512
	3	2.155	.965	.827	-1.118	5.427
	4	.928	.994	1.000	-2.442	4.297
	5	-.154	1.035	1.000	-3.664	3.357
	6	.923	.896	1.000	-2.116	3.962
	7	-.146	.843	1.000	-3.004	2.712
	8	-.752	.713	1.000	-3.170	1.666
	9	-.725	.639	1.000	-2.893	1.442
	10	-1.095	.386	.273	-2.403	.213
	12	.534	.318	.998	-.543	1.611
	1	4.741(*)	1.055	.001	1.165	8.317
	2	2.484	1.056	.722	-1.096	6.065
	3	1.621	.989	.999	-1.733	4.975
	4	.394	1.019	1.000	-3.060	3.848
	5	-.688	1.074	1.000	-4.328	2.953
	6	.389	.927	1.000	-2.754	3.531
	7	-.680	.889	1.000	-3.696	2.336
	8	-1.286	.769	.999	-3.893	1.320
	9	-1.259	.704	.994	-3.648	1.129
	10	-1.629	.491	.064	-3.293	.035
	11	-.534	.318	.998	-1.611	.543

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	45.765	1.201	43.403	48.127
	2	47.647	1.378	44.937	50.357
	3	47.804	1.439	44.974	50.633

Midwest	4	49.765	1.533	46.749	52.781
	5	49.294	1.604	46.138	52.450
	6	50.480	1.573	47.386	53.574
	7	50.255	1.702	46.906	53.603
	8	50.255	1.831	46.654	53.855
	9	50.245	1.801	46.703	53.788
	10	50.951	1.802	47.407	54.495
	11	49.059	1.789	45.541	52.577
	12	47.814	1.834	44.207	51.421
	1	47.138	1.162	44.853	49.422
	2	48.899	1.333	46.278	51.520
	3	50.587	1.392	47.850	53.324
	4	51.982	1.483	49.064	54.899
	5	53.156	1.552	50.103	56.209
	6	50.881	1.522	47.888	53.874
	7	51.991	1.647	48.752	55.230
	8	54.055	1.771	50.572	57.538
	9	53.028	1.742	49.601	56.454
	10	54.477	1.743	51.049	57.905
	11	53.459	1.730	50.055	56.862
	12	52.651	1.774	49.162	56.141
South	1	44.909	1.293	42.366	47.452
	2	46.909	1.483	43.992	49.826
	3	46.364	1.549	43.317	49.410
	4	47.455	1.651	44.208	50.701
	5	50.000	1.727	46.603	53.397
	6	49.091	1.694	45.760	52.422
	7	50.636	1.833	47.031	54.241
	8	51.284	1.971	47.408	55.161
	9	50.830	1.939	47.016	54.643
	10	49.364	1.940	45.548	53.179
	11	48.818	1.926	45.031	52.606

West	12	48.273	1.974	44.389	52.156
	1	44.308	1.682	41.000	47.616
	2	47.692	1.930	43.897	51.487
	3	49.846	2.015	45.883	53.809
	4	50.308	2.148	46.084	54.531
	5	51.385	2.247	46.965	55.804
	6	49.077	2.203	44.744	53.410
	7	50.923	2.384	46.233	55.613
	8	50.635	2.564	45.592	55.677
	9	52.019	2.523	47.058	56.981
	10	52.808	2.524	47.844	57.771
	11	51.885	2.505	46.957	56.812
	12	52.346	2.568	47.295	57.398

### ***General Linear Model of US Region of HQ for Environment***

#### **Between-Subjects Factors**

		Value Label	N
US Reg of HQ	1	Northeast	102
	2	Midwest	109
	3	South	88
	4	West	52

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1



Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	1927.434	11	175.221	2.100	.017	.006	.927
	Greenhouse-Geisser	1927.434	4.997	385.725	2.100	.063	.006	.700
	Huynh-Feldt	1927.434	5.123	376.267	2.100	.061	.006	.709
	Lower-bound	1927.434	1.000	1927.434	2.100	.148	.006	.304
year * reghq	Sphericity Assumed	3046.970	33	92.332	1.106	.310	.009	.946
	Greenhouse-Geisser	3046.970	14.991	203.257	1.106	.345	.009	.729
	Huynh-Feldt	3046.970	15.368	198.273	1.106	.344	.009	.738
	Lower-bound	3046.970	3.000	1015.657	1.106	.347	.009	.298
Error(year)	Sphericity Assumed	318542.542	3817	83.454				
	Greenhouse-Geisser	318542.542	1733.930	183.711				
	Huynh-Feldt	318542.542	1777.514	179.207				
	Lower-bound	318542.542	347.000	917.990				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	24.233	1	24.233	.083	.774	.000	.059
	Quadratic	57.288	1	57.288	.345	.557	.001	.090
	Cubic	349.104	1	349.104	2.999	.084	.009	.408
year * reghq	Linear	1562.623	3	520.874	1.774	.152	.015	.461
	Quadratic	354.411	3	118.137	.711	.546	.006	.201
	Cubic	511.197	3	170.399	1.464	.224	.012	.387
Error(year)	Linear	101896.741	347	293.651				
	Quadratic	57637.543	347	166.102				
	Cubic	40389.831	347	116.397				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	438.077	3	146.026	.058	.982	.001	.060
Error	870122.086	347	2507.556				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

#### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	50.538	1.431	47.722	53.353
Midwest	49.910	1.385	47.187	52.633
South	49.785	1.541	46.754	52.816
West	50.401	2.005	46.458	54.343

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) US Reg of HQ	(J) US Reg of HQ				Upper Bound	Lower Bound
Northeast	Midwest	.628	1.991	1.000	-4.642	5.897
	South	.753	2.103	1.000	-4.813	6.318
	West	.137	2.463	1.000	-6.381	6.655

Midwest	Northeast	-.628	1.991	1.000	-5.897	4.642
	South	.125	2.072	1.000	-5.357	5.607
	West	-.491	2.436	1.000	-6.938	5.956
South	Northeast	-.753	2.103	1.000	-6.318	4.813
	Midwest	-.125	2.072	1.000	-5.607	5.357
	West	-.616	2.528	1.000	-7.306	6.075
West	Northeast	-.137	2.463	1.000	-6.655	6.381
	Midwest	.491	2.436	1.000	-5.956	6.938
	South	.616	2.528	1.000	-6.075	7.306

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	36.506	3	12.169	.058	.982	.001	.060
Error	72510.174	347	208.963				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.800	.794	49.239	52.362
2	49.670	.869	47.961	51.379
3	49.316	.929	47.489	51.143
4	49.178	.955	47.300	51.056

5	49.825	.920	48.015	51.635
6	50.954	.947	49.091	52.817
7	51.269	1.012	49.279	53.258
8	50.838	1.013	48.846	52.830
9	50.220	.983	48.287	52.153
10	50.215	.960	48.326	52.103
11	49.115	.982	47.185	51.046
12	50.499	.900	48.730	52.269

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.130	.561	.951	-.771	3.031
	3	1.484	.672	.845	-.794	3.763
	4	1.622	.730	.836	-.855	4.099
	5	.975	.753	1.000	-1.578	3.527
	6	-.154	.761	1.000	-2.734	2.425
	7	-.469	.792	1.000	-3.154	2.217
	8	-.038	.821	1.000	-2.823	2.748
	9	.580	.859	1.000	-2.334	3.495
	10	.585	.794	1.000	-2.106	3.277
	11	1.685	.870	.974	-1.265	4.635
	12	.301	.854	1.000	-2.594	3.196
2	1	-1.130	.561	.951	-3.031	.771
	3	.354	.466	1.000	-1.227	1.935
	4	.492	.619	1.000	-1.608	2.592
	5	-.155	.685	1.000	-2.479	2.168
	6	-1.284	.778	.999	-3.924	1.355
	7	-1.599	.806	.961	-4.332	1.135

3	8	-1.168	.835	1.000	-4.000	1.664
	9	-.550	.846	1.000	-3.419	2.319
	10	-.545	.778	1.000	-3.184	2.095
	11	.555	.827	1.000	-2.249	3.359
	12	-.829	.843	1.000	-3.689	2.030
	1	-1.484	.672	.845	-3.763	.794
	2	-.354	.466	1.000	-1.935	1.227
	4	.138	.584	1.000	-1.843	2.119
	5	-.510	.695	1.000	-2.867	1.848
	6	-1.638	.775	.906	-4.265	.988
	7	-1.953	.813	.673	-4.708	.803
	8	-1.522	.824	.989	-4.317	1.273
4	9	-.904	.839	1.000	-3.749	1.940
	10	-.899	.792	1.000	-3.585	1.788
	11	.201	.887	1.000	-2.807	3.208
	12	-1.184	.897	1.000	-4.226	1.859
	1	-1.622	.730	.836	-4.099	.855
	2	-.492	.619	1.000	-2.592	1.608
	3	-.138	.584	1.000	-2.119	1.843
	5	-.647	.516	1.000	-2.397	1.102
	6	-1.776	.728	.635	-4.244	.692
	7	-2.091	.801	.465	-4.806	.625
	8	-1.660	.825	.952	-4.457	1.137
	9	-1.042	.832	1.000	-3.863	1.779
5	10	-1.037	.813	1.000	-3.792	1.719
	11	.063	.894	1.000	-2.967	3.093
	12	-1.321	.899	1.000	-4.370	1.727
	1	-.975	.753	1.000	-3.527	1.578
	2	.155	.685	1.000	-2.168	2.479
	3	.510	.695	1.000	-1.848	2.867
	4	.647	.516	1.000	-1.102	2.397
	6	-1.129	.593	.980	-3.139	.882
	7	-1.443	.669	.881	-3.712	.825

6	8	-1.013	.721	1.000	-3.459	1.433
	9	-.394	.714	1.000	-2.814	2.025
	10	-.389	.714	1.000	-2.810	2.031
	11	.710	.763	1.000	-1.879	3.299
	12	-.674	.788	1.000	-3.345	1.997
	1	.154	.761	1.000	-2.425	2.734
	2	1.284	.778	.999	-1.355	3.924
	3	1.638	.775	.906	-.988	4.265
	4	1.776	.728	.635	-.692	4.244
	5	1.129	.593	.980	-.882	3.139
	7	-.315	.381	1.000	-1.606	.977
	8	.116	.518	1.000	-1.639	1.872
7	9	.734	.569	1.000	-1.195	2.664
	10	.740	.609	1.000	-1.324	2.803
	11	1.839	.759	.653	-.735	4.412
	12	.455	.775	1.000	-2.174	3.083
	1	.469	.792	1.000	-2.217	3.154
	2	1.599	.806	.961	-1.135	4.332
	3	1.953	.813	.673	-.803	4.708
	4	2.091	.801	.465	-.625	4.806
	5	1.443	.669	.881	-.825	3.712
	6	.315	.381	1.000	-.977	1.606
	8	.431	.404	1.000	-.939	1.800
	9	1.049	.495	.904	-.630	2.728
8	10	1.054	.551	.979	-.815	2.923
	11	2.154	.728	.196	-.314	4.622
	12	.769	.750	1.000	-1.776	3.314
	1	.038	.821	1.000	-2.748	2.823
	2	1.168	.835	1.000	-1.664	4.000
	3	1.522	.824	.989	-1.273	4.317
	4	1.660	.825	.952	-1.137	4.457
	5	1.013	.721	1.000	-1.433	3.459
	6	-.116	.518	1.000	-1.872	1.639

9	7	-.431	.404	1.000	-1.800	.939
	9	.618	.368	.998	-.629	1.865
	10	.623	.467	1.000	-.961	2.208
	11	1.723	.700	.616	-.652	4.098
	12	.339	.759	1.000	-2.236	2.913
	1	-.580	.859	1.000	-3.495	2.334
	2	.550	.846	1.000	-2.319	3.419
	3	.904	.839	1.000	-1.940	3.749
	4	1.042	.832	1.000	-1.779	3.863
	5	.394	.714	1.000	-2.025	2.814
	6	-.734	.569	1.000	-2.664	1.195
	7	-1.049	.495	.904	-2.728	.630
10	8	-.618	.368	.998	-1.865	.629
	10	.005	.435	1.000	-1.470	1.481
	11	1.105	.637	.997	-1.056	3.266
	12	-.280	.692	1.000	-2.625	2.066
	1	-.585	.794	1.000	-3.277	2.106
	2	.545	.778	1.000	-2.095	3.184
	3	.899	.792	1.000	-1.788	3.585
	4	1.037	.813	1.000	-1.719	3.792
	5	.389	.714	1.000	-2.031	2.810
	6	-.740	.609	1.000	-2.803	1.324
	7	-1.054	.551	.979	-2.923	.815
	8	-.623	.467	1.000	-2.208	.961
11	9	-.005	.435	1.000	-1.481	1.470
	11	1.099	.518	.902	-.658	2.857
	12	-.285	.616	1.000	-2.373	1.803
	1	-1.685	.870	.974	-4.635	1.265
	2	-.555	.827	1.000	-3.359	2.249
	3	-.201	.887	1.000	-3.208	2.807
	4	-.063	.894	1.000	-3.093	2.967
	5	-.710	.763	1.000	-3.299	1.879
	6	-1.839	.759	.653	-4.412	.735

12	7	-2.154	.728	.196	-4.622	.314
	8	-1.723	.700	.616	-4.098	.652
	9	-1.105	.637	.997	-3.266	1.056
	10	-1.099	.518	.902	-2.857	.658
	12	-1.384	.503	.338	-3.089	.321
	1	-.301	.854	1.000	-3.196	2.594
	2	.829	.843	1.000	-2.030	3.689
	3	1.184	.897	1.000	-1.859	4.226
	4	1.321	.899	1.000	-1.727	4.370
	5	.674	.788	1.000	-1.997	3.345
	6	-.455	.775	1.000	-3.083	2.174
	7	-.769	.750	1.000	-3.314	1.776
	8	-.339	.759	1.000	-2.913	2.236
	9	.280	.692	1.000	-2.066	2.625
	10	.285	.616	1.000	-1.803	2.373
	11	1.384	.503	.338	-.321	3.089

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ    year		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	51.392	1.412	48.614	54.170
	2	50.402	1.546	47.362	53.442
	3	48.980	1.652	45.731	52.230
	4	48.392	1.699	45.051	51.733
	5	49.618	1.637	46.398	52.837
	6	51.029	1.685	47.715	54.343
	7	51.765	1.799	48.226	55.304
	8	52.108	1.801	48.565	55.651
	9	51.118	1.748	47.679	54.556



Midwest	10	50.716	1.708	47.357	54.075
	11	49.225	1.746	45.791	52.660
	12	51.706	1.600	48.558	54.853
	1	50.138	1.366	47.451	52.825
	2	48.275	1.495	45.334	51.216
	3	48.119	1.598	44.976	51.263
	4	48.183	1.643	44.952	51.415
	5	48.862	1.584	45.748	51.977
	6	49.936	1.630	46.730	53.142
	7	50.477	1.741	47.054	53.900
	8	50.413	1.742	46.986	53.840
	9	50.642	1.691	47.316	53.969
South	10	51.505	1.652	48.255	54.754
	11	50.872	1.689	47.549	54.194
	12	51.495	1.548	48.451	54.540
	1	51.420	1.520	48.430	54.411
	2	50.080	1.664	46.806	53.353
	3	49.875	1.779	46.376	53.374
	4	48.886	1.829	45.290	52.483
	5	49.091	1.762	45.624	52.557
	6	50.159	1.814	46.591	53.727
	7	51.102	1.937	47.292	54.912
	8	50.716	1.939	46.902	54.530
	9	49.966	1.882	46.264	53.668
West	10	49.773	1.839	46.156	53.389
	11	47.364	1.880	43.666	51.061
	12	48.989	1.723	45.600	52.377
	1	50.250	1.978	46.360	54.140
	2	49.923	2.165	45.665	54.181
	3	50.288	2.314	45.737	54.840
	4	51.250	2.379	46.571	55.929
	5	51.731	2.293	47.221	56.240

6	52.692	2.360	48.051	57.334
7	51.731	2.520	46.774	56.687
8	50.115	2.523	45.154	55.077
9	49.154	2.449	44.338	53.970
10	48.865	2.392	44.161	53.570
11	49.000	2.446	44.190	53.810
12	49.808	2.241	45.400	54.216

### ***General Linear Model of US Region of HQ for Product***

#### **Between-Subjects Factors**

	Value Label	N
US 1	Northeast	102
Reg of 2	Midwest	109
HQ 3	South	88
4	West	52

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	13174.958	11	1197.723	13.909	.000	.039	1.000
	Greenhouse-Geisser	13174.958	3.525	3737.393	13.909	.000	.039	1.000
	Huynh-Feldt	13174.958	3.597	3663.187	13.909	.000	.039	1.000

year * reghq	Lower-bound	13174.958	1.000	13174.958	13.909	.000	.039	.961
	Sphericity Assumed	2313.488	33	70.106	.814	.765	.007	.824
	Greenhouse-Geisser	2313.488	10.576	218.759	.814	.621	.007	.454
	Huynh-Feldt	2313.488	10.790	214.415	.814	.624	.007	.460
Error(year)	Lower-bound	2313.488	3.000	771.163	.814	.487	.007	.226
	Sphericity Assumed	328684.788	3817	86.111				
	Greenhouse-Geisser	328684.788	1223.235	268.701				
	Huynh-Feldt	328684.788	1248.014	263.366				
	Lower-bound	328684.788	347.000	947.218				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	12164.693	1	12164.693	27.907	.000	.074	1.000
	Quadratic	382.675	1	382.675	2.413	.121	.007	.341
	Cubic	118.730	1	118.730	1.234	.267	.004	.198
year * reghq	Linear	1031.737	3	343.912	.789	.501	.007	.220
	Quadratic	492.063	3	164.021	1.034	.377	.009	.280
	Cubic	66.600	3	22.200	.231	.875	.002	.094
Error(year)	Linear	151255.949	347	435.896				
	Quadratic	55028.745	347	158.584				
	Cubic	33388.938	347	96.222				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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reghq	22916.059	3	7638.686	3.299	.021	.028	.751
Error	803469.505	347	2315.474				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

#### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	46.483	1.375	43.778	49.188
Midwest	52.109	1.331	49.492	54.725
South	50.356	1.481	47.444	53.268
West	51.712	1.926	47.923	55.500

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Reg of HQ	(J) US Reg of HQ	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-5.626(*)	1.914	.021	-10.689	-.562
	South	-3.873	2.021	.293	-9.221	1.475
	West	-5.229	2.367	.156	-11.492	1.035
Midwest	Northeast	5.626(*)	1.914	.021	.562	10.689
	South	1.753	1.991	.943	-3.515	7.020
	West	.397	2.341	1.000	-5.798	6.592
South	Northeast	3.873	2.021	.293	-1.475	9.221

West	Midwest	-1.753	1.991	.943	-7.020	3.515
	West	-1.355	2.430	.994	-7.785	5.074
	Northeast	5.229	2.367	.156	-1.035	11.492
	Midwest	-.397	2.341	1.000	-6.592	5.798
	South	1.355	2.430	.994	-5.074	7.785

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1909.672	3	636.557	3.299	.021	.028	.751
Error	66955.792	347	192.956				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.307	.806	50.722	53.893
2	52.463	.856	50.779	54.147
3	52.411	.843	50.752	54.070
4	51.373	.884	49.633	53.112
5	50.998	.856	49.314	52.682
6	50.309	.868	48.601	52.016
7	49.878	.919	48.071	51.685

8	49.760	.941	47.908	51.611
9	49.441	.951	47.571	51.312
10	49.212	.978	47.288	51.135
11	47.585	1.028	45.563	49.607
12	46.241	1.048	44.180	48.302

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.155	.531	1.000	-1.958	1.647
	3	-.104	.605	1.000	-2.154	1.946
	4	.935	.721	1.000	-1.509	3.378
	5	1.309	.779	.998	-1.332	3.951
	6	1.999	.818	.632	-.775	4.772
	7	2.429	.888	.351	-.581	5.439
	8	2.548	.865	.203	-.384	5.479
	9	2.866	.888	.086	-.144	5.876
	10	3.096(*)	.883	.033	.103	6.089
	11	4.722(*)	.982	.000	1.392	8.053
	12	6.066(*)	1.005	.000	2.657	9.474
2	1	.155	.531	1.000	-1.647	1.958
	3	.051	.405	1.000	-1.322	1.425
	4	1.090	.637	.998	-1.071	3.252
	5	1.465	.732	.956	-1.018	3.947
	6	2.154	.779	.327	-.486	4.795
	7	2.585	.857	.166	-.320	5.490
	8	2.703	.848	.099	-.174	5.580
	9	3.022(*)	.876	.041	.050	5.993
	10	3.251(*)	.888	.019	.240	6.263

3	11	4.878(*)	.984	.000	1.540	8.216
	12	6.221(*)	1.019	.000	2.767	9.676
	1	.104	.605	1.000	-1.946	2.154
	2	-.051	.405	1.000	-1.425	1.322
	4	1.039	.523	.961	-.735	2.813
	5	1.413	.643	.853	-.767	3.594
	6	2.103	.741	.272	-.409	4.615
	7	2.533	.828	.146	-.273	5.340
	8	2.652	.815	.079	-.111	5.415
	9	2.970(*)	.859	.040	.058	5.883
	10	3.200(*)	.888	.023	.189	6.211
	11	4.826(*)	.968	.000	1.546	8.107
4	12	6.170(*)	.994	.000	2.800	9.540
	1	-.935	.721	1.000	-3.378	1.509
	2	-1.090	.637	.998	-3.252	1.071
	3	-1.039	.523	.961	-2.813	.735
	5	.375	.487	1.000	-1.277	2.026
	6	1.064	.645	.999	-1.122	3.250
	7	1.494	.736	.946	-1.002	3.991
	8	1.613	.762	.905	-.971	4.197
	9	1.931	.820	.718	-.848	4.711
	10	2.161	.845	.518	-.705	5.027
	11	3.788(*)	.932	.004	.628	6.947
	12	5.131(*)	.953	.000	1.899	8.363
5	1	-1.309	.779	.998	-3.951	1.332
	2	-1.465	.732	.956	-3.947	1.018
	3	-1.413	.643	.853	-3.594	.767
	4	-.375	.487	1.000	-2.026	1.277
	6	.689	.464	1.000	-.884	2.263
	7	1.120	.594	.984	-.895	3.135
	8	1.238	.641	.975	-.935	3.412
	9	1.557	.716	.869	-.871	3.984
	10	1.786	.745	.677	-.739	4.312

6	11	3.413(*)	.819	.003	.636	6.190
	12	4.757(*)	.849	.000	1.879	7.634
	1	-1.999	.818	.632	-4.772	.775
	2	-2.154	.779	.327	-4.795	.486
	3	-2.103	.741	.272	-4.615	.409
	4	-1.064	.645	.999	-3.250	1.122
	5	-.689	.464	1.000	-2.263	.884
	7	.431	.395	1.000	-.910	1.772
	8	.549	.491	1.000	-1.117	2.215
	9	.868	.585	1.000	-1.114	2.850
	10	1.097	.619	.995	-1.002	3.196
	11	2.724(*)	.733	.016	.237	5.211
7	12	4.067(*)	.758	.000	1.498	6.637
	1	-2.429	.888	.351	-5.439	.581
	2	-2.585	.857	.166	-5.490	.320
	3	-2.533	.828	.146	-5.340	.273
	4	-1.494	.736	.946	-3.991	1.002
	5	-1.120	.594	.984	-3.135	.895
	6	-.431	.395	1.000	-1.772	.910
	8	.119	.326	1.000	-.986	1.223
	9	.437	.490	1.000	-1.223	2.097
	10	.666	.584	1.000	-1.314	2.647
	11	2.293	.701	.075	-.084	4.671
	12	3.637(*)	.736	.000	1.142	6.131
8	1	-2.548	.865	.203	-5.479	.384
	2	-2.703	.848	.099	-5.580	.174
	3	-2.652	.815	.079	-5.415	.111
	4	-1.613	.762	.905	-4.197	.971
	5	-1.238	.641	.975	-3.412	.935
	6	-.549	.491	1.000	-2.215	1.117
	7	-.119	.326	1.000	-1.223	.986
	9	.318	.376	1.000	-.956	1.592
	10	.548	.508	1.000	-1.175	2.271



9	11	2.175	.645	.053	-.011	4.360
	12	3.518(*)	.694	.000	1.164	5.872
	1	-2.866	.888	.086	-5.876	.144
	2	-3.022(*)	.876	.041	-5.993	-.050
	3	-2.970(*)	.859	.040	-5.883	-.058
	4	-1.931	.820	.718	-4.711	.848
	5	-1.557	.716	.869	-3.984	.871
	6	-.868	.585	1.000	-2.850	1.114
	7	-.437	.490	1.000	-2.097	1.223
	8	-.318	.376	1.000	-1.592	.956
	10	.230	.363	1.000	-1.001	1.460
	11	1.856(*)	.521	.027	.090	3.622
10	12	3.200(*)	.598	.000	1.171	5.229
	1	-3.096(*)	.883	.033	-6.089	-.103
	2	-3.251(*)	.888	.019	-6.263	-.240
	3	-3.200(*)	.888	.023	-6.211	-.189
	4	-2.161	.845	.518	-5.027	.705
	5	-1.786	.745	.677	-4.312	.739
	6	-1.097	.619	.995	-3.196	1.002
	7	-.666	.584	1.000	-2.647	1.314
	8	-.548	.508	1.000	-2.271	1.175
	9	-.230	.363	1.000	-1.460	1.001
	11	1.627(*)	.411	.006	.234	3.019
	12	2.970(*)	.513	.000	1.231	4.709
11	1	-4.722(*)	.982	.000	-8.053	-1.392
	2	-4.878(*)	.984	.000	-8.216	-1.540
	3	-4.826(*)	.968	.000	-8.107	-1.546
	4	-3.788(*)	.932	.004	-6.947	-.628
	5	-3.413(*)	.819	.003	-6.190	-.636
	6	-2.724(*)	.733	.016	-5.211	-.237
	7	-2.293	.701	.075	-4.671	.084
	8	-2.175	.645	.053	-4.360	.011
	9	-1.856(*)	.521	.027	-3.622	-.090

12	10	-1.627(*)	.411	.006	-3.019	-.234
	12	1.344(*)	.334	.005	.212	2.475
	1	-6.066(*)	1.005	.000	-9.474	-2.657
	2	-6.221(*)	1.019	.000	-9.676	-2.767
	3	-6.170(*)	.994	.000	-9.540	-2.800
	4	-5.131(*)	.953	.000	-8.363	-1.899
	5	-4.757(*)	.849	.000	-7.634	-1.879
	6	-4.067(*)	.758	.000	-6.637	-1.498
	7	-3.637(*)	.736	.000	-6.131	-1.142
	8	-3.518(*)	.694	.000	-5.872	-1.164
	9	-3.200(*)	.598	.000	-5.229	-1.171
	10	-2.970(*)	.513	.000	-4.709	-1.231
	11	-1.344(*)	.334	.005	-2.475	-.212

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	50.549	1.434	47.728	53.370
	2	49.059	1.523	46.064	52.054
	3	50.098	1.500	47.147	53.049
	4	47.647	1.573	44.553	50.741
	5	47.824	1.523	44.829	50.818
	6	46.039	1.544	43.002	49.077
	7	45.480	1.635	42.265	48.696
	8	45.667	1.675	42.373	48.961
	9	44.922	1.692	41.594	48.249
	10	44.716	1.740	41.294	48.137
	11	43.039	1.828	39.443	46.636

Midwest	12	42.755	1.864	39.089	46.421
	1	52.633	1.387	49.904	55.362
	2	54.138	1.473	51.240	57.035
	3	54.486	1.451	51.631	57.341
	4	53.339	1.522	50.347	56.332
	5	52.642	1.473	49.745	55.539
	6	52.376	1.494	49.438	55.314
	7	52.376	1.581	49.266	55.486
	8	52.202	1.620	49.015	55.388
	9	51.853	1.636	48.635	55.072
	10	51.321	1.683	48.011	54.631
	11	49.404	1.769	45.925	52.883
South	12	48.532	1.803	44.986	52.078
	1	52.682	1.544	49.645	55.719
	2	53.443	1.640	50.218	56.668
	3	52.023	1.615	48.846	55.200
	4	52.023	1.693	48.692	55.353
	5	51.045	1.639	47.821	54.270
	6	51.261	1.663	47.991	54.531
	7	51.386	1.760	47.925	54.848
	8	49.977	1.803	46.431	53.523
	9	49.432	1.821	45.850	53.014
	10	48.886	1.873	45.203	52.570
	11	46.705	1.969	42.833	50.576
West	12	45.409	2.007	41.462	49.356
	1	53.365	2.009	49.415	57.316
	2	53.212	2.133	49.017	57.407
	3	53.038	2.101	48.905	57.172
	4	52.481	2.203	48.148	56.814
	5	52.481	2.133	48.286	56.675
	6	51.558	2.163	47.304	55.812
	7	50.269	2.289	45.766	54.772

8	51.192	2.346	46.579	55.806
9	51.558	2.369	46.898	56.218
10	51.923	2.436	47.131	56.715
11	51.192	2.561	46.156	56.229
12	48.269	2.610	43.135	53.404

### ***General Linear Model of US Region of HQ for Corporate Governance***

#### **Between-Subjects Factors**

	Value Label	N
US Reg of HQ 1	Northeast	102
2	Midwest	109
3	South	88
4	West	52

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	49509.268	11	4500.843	33.723	.000	.089	1.000
	Greenhouse-Geisser	49509.268	5.533	8948.123	33.723	.000	.089	1.000
	Huynh-Feldt	49509.268	5.682	8714.072	33.723	.000	.089	1.000
	Lower-bound	49509.268	1.000	49509.268	33.723	.000	.089	1.000
year * reghq	Sphericity Assumed	5089.421	33	154.225	1.156	.249	.010	.957
	Greenhouse-Geisser	5089.421	16.599	306.614	1.156	.295	.010	.787

Error(year)	Huynh-Feldt	5089.421	17.045	298.594	1.156	.294	.010	.796
	Lower-bound	5089.421	3.000	1696.474	1.156	.327	.010	.311
	Sphericity Assumed	509429.073	3817	133.463				
	Greenhouse-Geisser	509429.073	1919.924	265.338				
	Huynh-Feldt	509429.073	1971.491	258.398				
	Lower-bound	509429.073	347.000	1468.095				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	46479.315	1	46479.315	96.366	.000	.217	1.000
	Quadratic	663.959	1	663.959	3.039	.082	.009	.412
	Cubic	416.663	1	416.663	2.737	.099	.008	.378
year * reghq	Linear	1386.764	3	462.255	.958	.413	.008	.262
	Quadratic	1765.488	3	588.496	2.693	.046	.023	.653
	Cubic	227.740	3	75.913	.499	.683	.004	.151
Error(year)	Linear	167364.970	347	482.320				
	Quadratic	75821.049	347	218.504				
	Cubic	52815.673	347	152.207				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	9084.744	3	3028.248	1.771	.152	.015	.461
Error	593290.318	347	1709.770				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

#### Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	48.758	1.182	46.434	51.083
Midwest	52.239	1.143	49.991	54.488
South	50.131	1.272	47.628	52.633
West	48.875	1.655	45.619	52.131

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) US Reg of HQ	(J) US Reg of HQ				Upper Bound	Lower Bound
Northeast	Midwest	-3.481	1.644	.192	-7.832	.870
	South	-1.373	1.737	.966	-5.968	3.223
	West	-.117	2.034	1.000	-5.499	5.265
Midwest	Northeast	3.481	1.644	.192	-.870	7.832
	South	2.109	1.711	.772	-2.418	6.635
	West	3.364	2.012	.452	-1.959	8.688
South	Northeast	1.373	1.737	.966	-3.223	5.968
	Midwest	-2.109	1.711	.772	-6.635	2.418
	West	1.256	2.088	.991	-4.269	6.780
West	Northeast	.117	2.034	1.000	-5.265	5.499
	Midwest	-3.364	2.012	.452	-8.688	1.959

	South	-1.256	2.088	.991	-6.780	4.269
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Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	757.062	3	252.354	1.771	.152	.015	.461
Error	49440.860	347	142.481				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.350	.342	55.677	57.024
2	55.468	.662	54.165	56.771
3	53.512	.742	52.052	54.973
4	51.717	.878	49.991	53.444
5	49.360	.920	47.551	51.169
6	50.815	.942	48.961	52.669
7	49.891	.999	47.927	51.855
8	47.383	1.049	45.320	49.447
9	48.427	1.030	46.402	50.451
10	46.748	1.020	44.743	48.754
11	45.495	1.005	43.518	47.472
12	44.842	1.013	42.850	46.835

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.883	.615	1.000	-1.202	2.967
	3	2.838(*)	.734	.009	.348	5.328
	4	4.633(*)	.898	.000	1.587	7.680
	5	6.991(*)	.945	.000	3.784	10.197
	6	5.535(*)	.975	.000	2.229	8.842
	7	6.459(*)	1.042	.000	2.926	9.992
	8	8.967(*)	1.086	.000	5.284	12.650
	9	7.924(*)	1.067	.000	4.306	11.542
	10	9.602(*)	1.077	.000	5.949	13.255
	11	10.856(*)	1.068	.000	7.235	14.476
	12	11.508(*)	1.069	.000	7.883	15.133
2	1	-.883	.615	1.000	-2.967	1.202
	3	1.956	.581	.054	-.014	3.925
	4	3.751(*)	.780	.000	1.105	6.396
	5	6.108(*)	.844	.000	3.246	8.970
	6	4.653(*)	.880	.000	1.670	7.635
	7	5.576(*)	.968	.000	2.294	8.859
	8	8.085(*)	1.001	.000	4.692	11.477
	9	7.041(*)	1.040	.000	3.516	10.567
	10	8.720(*)	1.076	.000	5.071	12.368
	11	9.973(*)	1.056	.000	6.392	13.554
	12	10.626(*)	1.063	.000	7.020	14.232
3	1	-2.838(*)	.734	.009	-5.328	-.348
	2	-1.956	.581	.054	-3.925	.014
	4	1.795	.737	.639	-.702	4.293



4	5	4.152(*)	.800	.000	1.439	6.866
	6	2.697	.885	.152	-.304	5.699
	7	3.621(*)	.997	.021	.241	7.001
	8	6.129(*)	1.009	.000	2.707	9.550
	9	5.086(*)	1.057	.000	1.503	8.669
	10	6.764(*)	1.101	.000	3.029	10.499
	11	8.018(*)	1.065	.000	4.408	11.627
	12	8.670(*)	1.081	.000	5.004	12.337
	1	-4.633(*)	.898	.000	-7.680	-1.587
	2	-3.751(*)	.780	.000	-6.396	-1.105
	3	-1.795	.737	.639	-4.293	.702
	5	2.357(*)	.619	.011	.259	4.456
5	6	.902	.849	1.000	-1.978	3.782
	7	1.826	.920	.961	-1.295	4.947
	8	4.334(*)	.956	.001	1.091	7.576
	9	3.291	1.018	.085	-.161	6.743
	10	4.969(*)	1.025	.000	1.493	8.445
	11	6.222(*)	.969	.000	2.937	9.507
	12	6.875(*)	.976	.000	3.564	10.186
	1	-6.991(*)	.945	.000	-10.197	-3.784
	2	-6.108(*)	.844	.000	-8.970	-3.246
	3	-4.152(*)	.800	.000	-6.866	-1.439
	4	-2.357(*)	.619	.011	-4.456	-.259
	6	-1.455	.745	.970	-3.982	1.072
6	7	-.531	.823	1.000	-3.322	2.259
	8	1.977	.859	.770	-.937	4.890
	9	.933	.920	1.000	-2.187	4.054
	10	2.612	.943	.323	-.585	5.809
	11	3.865(*)	.886	.001	.862	6.868
	12	4.518(*)	.904	.000	1.451	7.584
	1	-5.535(*)	.975	.000	-8.842	-2.229
	2	-4.653(*)	.880	.000	-7.635	-1.670
	3	-2.697	.885	.152	-5.699	.304

7	4	-.902	.849	1.000	-3.782	1.978
	5	1.455	.745	.970	-1.072	3.982
	7	.924	.701	1.000	-1.453	3.300
	8	3.432(*)	.863	.006	.505	6.358
	9	2.389	.962	.592	-.873	5.650
	10	4.067(*)	.974	.002	.765	7.369
	11	5.320(*)	.961	.000	2.061	8.580
	12	5.973(*)	.972	.000	2.677	9.269
	1	-6.459(*)	1.042	.000	-9.992	-2.926
	2	-5.576(*)	.968	.000	-8.859	-2.294
	3	-3.621(*)	.997	.021	-7.001	-.241
	4	-1.826	.920	.961	-4.947	1.295
8	5	.531	.823	1.000	-2.259	3.322
	6	-.924	.701	1.000	-3.300	1.453
	8	2.508	.749	.058	-.032	5.049
	9	1.465	.888	.999	-1.548	4.477
	10	3.143	.950	.066	-.077	6.363
	11	4.397(*)	.903	.000	1.333	7.460
	12	5.049(*)	.925	.000	1.914	8.185
	1	-8.967(*)	1.086	.000	-12.650	-5.284
	2	-8.085(*)	1.001	.000	-11.477	-4.692
	3	-6.129(*)	1.009	.000	-9.550	-2.707
	4	-4.334(*)	.956	.001	-7.576	-1.091
	5	-1.977	.859	.770	-4.890	.937
9	6	-3.432(*)	.863	.006	-6.358	-.505
	7	-2.508	.749	.058	-5.049	.032
	9	-1.043	.706	1.000	-3.438	1.352
	10	.635	.866	1.000	-2.301	3.572
	11	1.889	.865	.863	-1.044	4.821
	12	2.541	.896	.274	-.498	5.580
	1	-7.924(*)	1.067	.000	-11.542	-4.306
	2	-7.041(*)	1.040	.000	-10.567	-3.516
	3	-5.086(*)	1.057	.000	-8.669	-1.503

10	4	-3.291	1.018	.085	-6.743	.161
	5	-.933	.920	1.000	-4.054	2.187
	6	-2.389	.962	.592	-5.650	.873
	7	-1.465	.888	.999	-4.477	1.548
	8	1.043	.706	1.000	-1.352	3.438
	10	1.678	.736	.788	-.817	4.174
	11	2.932(*)	.814	.024	.172	5.692
	12	3.584(*)	.862	.003	.662	6.507
	1	-9.602(*)	1.077	.000	-13.255	-5.949
	2	-8.720(*)	1.076	.000	-12.368	-5.071
	3	-6.764(*)	1.101	.000	-10.499	-3.029
	4	-4.969(*)	1.025	.000	-8.445	-1.493
11	5	-2.612	.943	.323	-5.809	.585
	6	-4.067(*)	.974	.002	-7.369	-.765
	7	-3.143	.950	.066	-6.363	.077
	8	-.635	.866	1.000	-3.572	2.301
	9	-1.678	.736	.788	-4.174	.817
	11	1.253	.569	.850	-.676	3.183
	12	1.906	.659	.237	-.330	4.142
	1	-10.856(*)	1.068	.000	-14.476	-7.235
	2	-9.973(*)	1.056	.000	-13.554	-6.392
	3	-8.018(*)	1.065	.000	-11.627	-4.408
	4	-6.222(*)	.969	.000	-9.507	-2.937
	5	-3.865(*)	.886	.001	-6.868	-.862
12	6	-5.320(*)	.961	.000	-8.580	-2.061
	7	-4.397(*)	.903	.000	-7.460	-1.333
	8	-1.889	.865	.863	-4.821	1.044
	9	-2.932(*)	.814	.024	-5.692	-.172
	10	-1.253	.569	.850	-3.183	.676
	12	.653	.374	.996	-.615	1.920
	1	-11.508(*)	1.069	.000	-15.133	-7.883
	2	-10.626(*)	1.063	.000	-14.232	-7.020
	3	-8.670(*)	1.081	.000	-12.337	-5.004

4	-6.875(*)	.976	.000	-10.186	-3.564
5	-4.518(*)	.904	.000	-7.584	-1.451
6	-5.973(*)	.972	.000	-9.269	-2.677
7	-5.049(*)	.925	.000	-8.185	-1.914
8	-2.541	.896	.274	-5.580	.498
9	-3.584(*)	.862	.003	-6.507	-.662
10	-1.906	.659	.237	-4.142	.330
11	-.653	.374	.996	-1.920	.615

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	56.618	.609	55.420	57.815
	2	55.343	1.178	53.025	57.661
	3	51.265	1.321	48.667	53.862
	4	49.225	1.561	46.155	52.296
	5	46.931	1.636	43.714	50.149
	6	48.588	1.676	45.291	51.885
	7	48.206	1.776	44.712	51.699
	8	45.275	1.866	41.604	48.945
	9	47.186	1.831	43.584	50.788
	10	45.529	1.814	41.962	49.097
	11	46.294	1.788	42.778	49.811
	12	44.637	1.802	41.093	48.182
Midwest	1	56.761	.589	55.603	57.920
	2	56.881	1.140	54.639	59.123
	3	55.569	1.278	53.056	58.082
	4	54.257	1.510	51.286	57.228

South	5	50.917	1.583	47.805	54.030
	6	53.183	1.622	49.994	56.373
	7	52.826	1.718	49.446	56.205
	8	49.248	1.805	45.697	52.799
	9	50.440	1.772	46.956	53.925
	10	49.963	1.755	46.512	53.415
	11	49.128	1.730	45.727	52.530
	12	47.697	1.743	44.269	51.126
	1	55.523	.656	54.233	56.812
	2	53.898	1.269	51.402	56.393
	3	52.716	1.422	49.919	55.513
	4	51.386	1.681	48.080	54.693
West	5	51.091	1.761	47.627	54.555
	6	51.239	1.805	47.689	54.788
	7	51.534	1.912	47.773	55.295
	8	49.761	2.009	45.809	53.713
	9	48.580	1.972	44.702	52.458
	10	47.250	1.953	43.409	51.091
	11	43.557	1.925	39.771	47.343
	12	45.034	1.940	41.218	48.850
	1	56.500	.853	54.823	58.177
	2	55.750	1.650	52.504	58.996
	3	54.500	1.850	50.862	58.138
	4	52.000	2.187	47.699	56.301
	5	48.500	2.291	43.993	53.007
	6	50.250	2.348	45.632	54.868
	7	47.000	2.488	42.107	51.893
	8	45.250	2.614	40.109	50.391
	9	47.500	2.565	42.455	52.545
	10	44.250	2.541	39.253	49.247
	11	43.000	2.504	38.075	47.925
	12	42.000	2.524	37.036	46.964

## General Linear Model of US Region of HQ for Total CSR

### Between-Subjects Factors

		Value Label	N
US Reg of HQ	1	Northeast	102
	2	Midwest	109
	3	South	88
	4	West	52

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	44040.044	11	4003.640	6.566	.000	.019	1.000
	Greenhouse-Geisser	44040.044	4.711	9349.102	6.566	.000	.019	.997
	Huynh-Feldt	44040.044	4.825	9128.131	6.566	.000	.019	.997
	Lower-bound	44040.044	1.000	44040.044	6.566	.011	.019	.724
year * reghq	Sphericity Assumed	29642.680	33	898.263	1.473	.040	.013	.991
	Greenhouse-Geisser	29642.680	14.132	2097.579	1.473	.112	.013	.855
	Huynh-Feldt	29642.680	14.474	2048.002	1.473	.110	.013	.862
	Lower-bound	29642.680	3.000	9880.893	1.473	.222	.013	.389
Error(year)	Sphericity Assumed	2327566.096	3817	609.789				
	Greenhouse-Geisser	2327566.096	1634.584	1423.950				
	Huynh-Feldt	2327566.096	1674.154	1390.294				
	Lower-bound	2327566.096	347.000	6707.683				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	22329.937	1	22329.937	9.243	.003	.026	.858
	Quadratic	17524.425	1	17524.425	14.263	.000	.039	.965
	Cubic	249.804	1	249.804	.374	.541	.001	.094
year * reghq	Linear	12717.406	3	4239.135	1.755	.156	.015	.457
	Quadratic	5877.448	3	1959.149	1.595	.190	.014	.419
	Cubic	3470.753	3	1156.918	1.734	.160	.015	.452
Error(year)	Linear	838306.420	347	2415.869				
	Quadratic	426350.262	347	1228.675				
	Cubic	231466.742	347	667.051				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
reghq	110146.382	3	36715.461	1.907	.128	.016	.492
Error	6680922.540	347	19253.379				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. US Reg of HQ

Estimates

Measure: MEASURE\_1

US Reg of HQ	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	299.118	3.966	291.318	306.919
Midwest	306.126	3.837	298.580	313.672
South	292.644	4.270	284.246	301.042
West	302.205	5.555	291.280	313.130

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Reg of HQ	(J) US Reg of HQ	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-7.008	5.518	.747	-21.609	7.594
	South	6.475	5.828	.845	-8.946	21.895
	West	-3.087	6.825	.998	-21.147	14.974
Midwest	Northeast	7.008	5.518	.747	-7.594	21.609
	South	13.482	5.740	.111	-1.708	28.672
	West	3.921	6.751	.993	-13.943	21.785
South	Northeast	-6.475	5.828	.845	-21.895	8.946
	Midwest	-13.482	5.740	.111	-28.672	1.708
	West	-9.561	7.006	.681	-28.101	8.978
West	Northeast	3.087	6.825	.998	-14.974	21.147
	Midwest	-3.921	6.751	.993	-21.785	13.943
	South	9.561	7.006	.681	-8.978	28.101

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests



Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	9178.865	3	3059.622	1.907	.128	.016	.492
Error	556743.545	347	1604.448				

The F tests the effect of US Reg of HQ. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	299.897	2.158	295.651	304.142
2	302.393	2.353	297.765	307.020
3	302.839	2.517	297.889	307.789
4	301.935	2.615	296.791	307.080
5	301.971	2.598	296.860	307.081
6	302.100	2.513	297.158	307.041
7	303.590	2.692	298.296	308.885
8	299.992	2.771	294.543	305.442
9	300.698	2.723	295.341	306.054
10	298.667	2.643	293.468	303.865
11	293.445	2.705	288.124	298.766
12	292.755	2.713	287.420	298.090

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-2.496	1.250	.957	-6.735	1.743
	3	-2.943	1.518	.973	-8.091	2.206
	4	-2.039	1.924	1.000	-8.562	4.484
	5	-2.074	2.055	1.000	-9.041	4.893
	6	-2.203	2.185	1.000	-9.613	5.207
	7	-3.694	2.323	1.000	-11.570	4.182
	8	-.096	2.371	1.000	-8.136	7.944
	9	-.801	2.287	1.000	-8.555	6.953
	10	1.230	2.264	1.000	-6.447	8.907
	11	6.452	2.412	.405	-1.727	14.630
	12	7.142	2.441	.215	-1.137	15.421
2	1	2.496	1.250	.957	-1.743	6.735
	3	-.447	1.171	1.000	-4.418	3.525
	4	.457	1.729	1.000	-5.404	6.319
	5	.422	1.943	1.000	-6.167	7.011
	6	.293	2.123	1.000	-6.905	7.491
	7	-1.198	2.255	1.000	-8.843	6.447
	8	2.400	2.234	1.000	-5.175	9.975
	9	1.695	2.226	1.000	-5.852	9.241
	10	3.726	2.211	.998	-3.770	11.222
	11	8.948(*)	2.330	.010	1.047	16.849
	12	9.638(*)	2.355	.003	1.653	17.623
3	1	2.943	1.518	.973	-2.206	8.091
	2	.447	1.171	1.000	-3.525	4.418
	4	.904	1.575	1.000	-4.438	6.246
	5	.869	1.936	1.000	-5.698	7.435
	6	.740	2.106	1.000	-6.401	7.880
	7	-.751	2.272	1.000	-8.455	6.952
	8	2.847	2.242	1.000	-4.755	10.449

4	9	2.141	2.237	1.000	-5.445	9.728
	10	4.173	2.240	.987	-3.423	11.768
	11	9.394(*)	2.324	.004	1.514	17.275
	12	10.085(*)	2.336	.001	2.163	18.006
	1	2.039	1.924	1.000	-4.484	8.562
	2	-.457	1.729	1.000	-6.319	5.404
	3	-.904	1.575	1.000	-6.246	4.438
	5	-.035	1.315	1.000	-4.495	4.424
	6	-.164	1.771	1.000	-6.169	5.840
	7	-1.655	1.926	1.000	-8.188	4.878
	8	1.943	1.981	1.000	-4.775	8.661
	9	1.238	2.057	1.000	-5.737	8.212
5	10	3.269	2.089	1.000	-3.815	10.353
	11	8.491(*)	2.206	.009	1.011	15.970
	12	9.181(*)	2.168	.002	1.829	16.532
	1	2.074	2.055	1.000	-4.893	9.041
	2	-.422	1.943	1.000	-7.011	6.167
	3	-.869	1.936	1.000	-7.435	5.698
	4	.035	1.315	1.000	-4.424	4.495
	6	-.129	1.501	1.000	-5.219	4.961
	7	-1.620	1.741	1.000	-7.524	4.285
	8	1.978	1.923	1.000	-4.543	8.500
	9	1.273	1.969	1.000	-5.402	7.948
	10	3.304	2.038	.999	-3.606	10.214
6	11	8.526(*)	2.173	.007	1.157	15.895
	12	9.216(*)	2.150	.002	1.926	16.506
	1	2.203	2.185	1.000	-5.207	9.613
	2	-.293	2.123	1.000	-7.491	6.905
	3	-.740	2.106	1.000	-7.880	6.401
	4	.164	1.771	1.000	-5.840	6.169
	5	.129	1.501	1.000	-4.961	5.219
	7	-1.491	1.225	1.000	-5.644	2.662
	8	2.107	1.606	1.000	-3.339	7.554

7	9	1.402	1.742	1.000	-4.505	7.309
	10	3.433	1.902	.993	-3.016	9.882
	11	8.655(*)	2.104	.003	1.521	15.789
	12	9.345(*)	2.095	.001	2.241	16.449
	1	3.694	2.323	1.000	-4.182	11.570
	2	1.198	2.255	1.000	-6.447	8.843
	3	.751	2.272	1.000	-6.952	8.455
	4	1.655	1.926	1.000	-4.878	8.188
	5	1.620	1.741	1.000	-4.285	7.524
	6	1.491	1.225	1.000	-2.662	5.644
	8	3.598	1.399	.503	-1.146	8.342
	9	2.893	1.568	.989	-2.425	8.211
8	10	4.924	1.810	.364	-1.212	11.060
	11	10.146(*)	2.070	.000	3.125	17.166
	12	10.836(*)	2.057	.000	3.860	17.812
	1	.096	2.371	1.000	-7.944	8.136
	2	-2.400	2.234	1.000	-9.975	5.175
	3	-2.847	2.242	1.000	-10.449	4.755
	4	-1.943	1.981	1.000	-8.661	4.775
	5	-1.978	1.923	1.000	-8.500	4.543
	6	-2.107	1.606	1.000	-7.554	3.339
	7	-3.598	1.399	.503	-8.342	1.146
	9	-.705	1.125	1.000	-4.520	3.109
	10	1.326	1.551	1.000	-3.935	6.586
9	11	6.548(*)	1.765	.016	.563	12.532
	12	7.238(*)	1.864	.008	.918	13.557
	1	.801	2.287	1.000	-6.953	8.555
	2	-1.695	2.226	1.000	-9.241	5.852
	3	-2.141	2.237	1.000	-9.728	5.445
	4	-1.238	2.057	1.000	-8.212	5.737
	5	-1.273	1.969	1.000	-7.948	5.402
	6	-1.402	1.742	1.000	-7.309	4.505
	7	-2.893	1.568	.989	-8.211	2.425

10	8	.705	1.125	1.000	-3.109	4.520
	10	2.031	1.339	1.000	-2.509	6.571
	11	7.253(*)	1.627	.001	1.737	12.769
	12	7.943(*)	1.716	.000	2.125	13.762
	1	-1.230	2.264	1.000	-8.907	6.447
	2	-3.726	2.211	.998	-11.222	3.770
	3	-4.173	2.240	.987	-11.768	3.423
	4	-3.269	2.089	1.000	-10.353	3.815
	5	-3.304	2.038	.999	-10.214	3.606
	6	-3.433	1.902	.993	-9.882	3.016
11	7	-4.924	1.810	.364	-11.060	1.212
	8	-1.326	1.551	1.000	-6.586	3.935
	9	-2.031	1.339	1.000	-6.571	2.509
	11	5.222(*)	1.116	.000	1.436	9.007
	12	5.912(*)	1.345	.001	1.350	10.474
	1	-6.452	2.412	.405	-14.630	1.727
	2	-8.948(*)	2.330	.010	-16.849	-1.047
	3	-9.394(*)	2.324	.004	-17.275	-1.514
	4	-8.491(*)	2.206	.009	-15.970	-1.011
	5	-8.526(*)	2.173	.007	-15.895	-1.157
12	6	-8.655(*)	2.104	.003	-15.789	-1.521
	7	-10.146(*)	2.070	.000	-17.166	-3.125
	8	-6.548(*)	1.765	.016	-12.532	-.563
	9	-7.253(*)	1.627	.001	-12.769	-1.737
	10	-5.222(*)	1.116	.000	-9.007	-1.436
	12	.690	.969	1.000	-2.595	3.975
	1	-7.142	2.441	.215	-15.421	1.137
	2	-9.638(*)	2.355	.003	-17.623	-1.653
	3	-10.085(*)	2.336	.001	-18.006	-2.163
	4	-9.181(*)	2.168	.002	-16.532	-1.829
	5	-9.216(*)	2.150	.002	-16.506	-1.926
	6	-9.345(*)	2.095	.001	-16.449	-2.241
	7	-10.836(*)	2.057	.000	-17.812	-3.860

8	-7.238(*)	1.864	.008	-13.557	-.918
9	-7.943(*)	1.716	.000	-13.762	-2.125
10	-5.912(*)	1.345	.001	-10.474	-1.350
11	-.690	.969	1.000	-3.975	2.595

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Reg of HQ \* year

Measure: MEASURE\_1

US Reg of HQ	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	303.049	3.839	295.497	310.601
	2	303.225	4.186	294.993	311.458
	3	300.990	4.477	292.185	309.796
	4	298.088	4.653	288.938	307.239
	5	298.078	4.622	288.988	307.169
	6	299.324	4.469	290.533	308.114
	7	300.627	4.788	291.210	310.045
	8	298.265	4.928	288.572	307.958
	9	300.510	4.844	290.982	310.038
	10	298.147	4.702	288.899	307.395
	11	295.186	4.812	285.721	304.651
	12	293.931	4.825	284.441	303.422
Midwest	1	300.826	3.714	293.521	308.131
	2	304.697	4.049	296.734	312.661
	3	308.046	4.331	299.528	316.564
	4	308.532	4.501	299.680	317.384
	5	306.505	4.471	297.711	315.298
	6	307.459	4.323	298.955	315.962
	7	310.560	4.632	301.449	319.670
	8	308.028	4.767	298.651	317.404

South	9	306.349	4.686	297.132	315.566
	10	307.670	4.548	298.724	316.616
	11	303.312	4.655	294.156	312.468
	12	301.532	4.668	292.352	310.713
	1	297.000	4.134	288.870	305.130
	2	298.148	4.506	289.285	307.011
	3	294.398	4.820	284.918	303.878
	4	293.852	5.009	284.001	303.704
	5	296.011	4.976	286.225	305.798
	6	296.443	4.812	286.979	305.907
	7	300.136	5.155	289.997	310.276
	8	295.466	5.306	285.030	305.902
West	9	291.125	5.216	280.867	301.383
	10	288.773	5.062	278.816	298.729
	11	279.455	5.181	269.264	289.645
	12	280.920	5.195	270.703	291.138
	1	298.712	5.377	288.135	309.288
	2	303.500	5.862	291.970	315.030
	3	307.923	6.270	295.591	320.255
	4	307.269	6.516	294.453	320.085
	5	307.288	6.473	294.557	320.020
	6	305.173	6.260	292.862	317.485
	7	303.038	6.706	289.848	316.229
	8	298.212	6.902	284.636	311.787
	9	304.808	6.785	291.463	318.152
	10	300.077	6.585	287.125	313.029
	11	295.827	6.740	282.571	309.083
	12	294.635	6.758	281.343	307.926

## APPENDIX D

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with U.S. Region of Incorporation

#### *General Linear Model of US Region of Inc. for Community Relations*

##### Between-Subjects Factors

	Value Label	N
US Region of Inc	1 Northeast	57
	2 Midwest	52
	3 South	215

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	18785.532	11	1707.776	16.644	.000	.049	1.000
	Greenhouse-Geisser	18785.532	4.131	4547.351	16.644	.000	.049	1.000
	Huynh-Feldt	18785.532	4.218	4453.921	16.644	.000	.049	1.000
	Lower-bound	18785.532	1.000	18785.532	16.644	.000	.049	.982
year * usreginc	Sphericity Assumed	2954.466	22	134.294	1.309	.152	.008	.920
	Greenhouse-Geisser	2954.466	8.262	357.589	1.309	.233	.008	.619
	Huynh-Feldt	2954.466	8.436	350.242	1.309	.231	.008	.626
	Lower-bound	2954.466	2.000	1477.233	1.309	.272	.008	.282
Error(year)	Sphericity Assumed	362297.405	3531	102.605				
	Greenhouse-Geisser	362297.405	1326.081	273.209				
	Huynh-Feldt	362297.405	1353.898	267.596				
	Lower-bound	362297.405	321.000	1128.652				



a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15401.992	1	15401.992	34.091	.000	.096	1.000
	Quadratic	705.987	1	705.987	4.188	.042	.013	.532
	Cubic	1824.083	1	1824.083	17.964	.000	.053	.988
year * usreginc	Linear	1459.824	2	729.912	1.616	.200	.010	.341
	Quadratic	309.175	2	154.588	.917	.401	.006	.208
	Cubic	380.027	2	190.014	1.871	.156	.012	.388
Error(year)	Linear	145025.447	321	451.793				
	Quadratic	54108.550	321	168.562				
	Cubic	32594.544	321	101.541				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	32095.976	2	16047.988	7.525	.001	.045	.943
Error	684589.910	321	2132.679				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. US Region of Inc

Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	53.450	1.766	49.976	56.924
Midwest	53.877	1.849	50.239	57.514
South	47.578	.909	45.790	49.367

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-.426	2.557	.998	-6.563	5.710
	South	5.872(*)	1.986	.010	1.105	10.639
Midwest	Northeast	.426	2.557	.998	-5.710	6.563
	South	6.298(*)	2.060	.007	1.353	11.243
South	Northeast	-5.872(*)	1.986	.010	-10.639	-1.105
	Midwest	-6.298(*)	2.060	.007	-11.243	-1.353

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2674.665	2	1337.332	7.525	.001	.045	.943
Error	57049.159	321	177.723				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.920	1.115	50.727	55.113
2	54.647	1.178	52.328	56.965
3	56.117	1.309	53.541	58.693
4	53.922	1.172	51.616	56.228
5	53.876	1.168	51.579	56.174
6	51.816	1.098	49.655	53.976
7	52.176	1.125	49.963	54.388
8	50.584	1.070	48.478	52.690
9	49.534	1.081	47.406	51.661
10	47.986	.988	46.042	49.930
11	47.766	.993	45.812	49.721
12	48.277	1.086	46.140	50.413

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-1.727	.590	.215	-3.728	.274
	3	-3.197(*)	.848	.013	-6.074	-.320
	4	-1.002	.965	1.000	-4.275	2.271
	5	-.956	1.080	1.000	-4.623	2.710

2	6	1.104	1.103	1.000	-2.640	4.848
	7	.744	1.115	1.000	-3.040	4.529
	8	2.336	1.119	.920	-1.461	6.132
	9	3.386	1.112	.154	-.388	7.161
	10	4.934(*)	1.137	.001	1.074	8.793
	11	5.154(*)	1.153	.001	1.240	9.067
	12	4.643(*)	1.190	.008	.605	8.682
	1	1.727	.590	.215	-.274	3.728
	3	-1.471	.650	.805	-3.678	.737
	4	.725	.895	1.000	-2.313	3.762
	5	.770	1.034	1.000	-2.738	4.279
	6	2.831	1.108	.521	-.929	6.590
3	7	2.471	1.142	.876	-1.403	6.345
	8	4.062(*)	1.141	.028	.189	7.935
	9	5.113(*)	1.148	.001	1.217	9.009
	10	6.660(*)	1.171	.000	2.686	10.635
	11	6.880(*)	1.205	.000	2.791	10.969
	12	6.370(*)	1.232	.000	2.191	10.549
	1	3.197(*)	.848	.013	.320	6.074
	2	1.471	.650	.805	-.737	3.678
	4	2.195	.792	.323	-.492	4.882
	5	2.241	1.026	.863	-1.240	5.721
	6	4.301(*)	1.118	.010	.506	8.097
	7	3.941(*)	1.158	.048	.011	7.871
4	8	5.533(*)	1.156	.000	1.609	9.457
	9	6.584(*)	1.168	.000	2.619	10.548
	10	8.131(*)	1.207	.000	4.035	12.227
	11	8.351(*)	1.256	.000	4.090	12.612
	12	7.840(*)	1.297	.000	3.440	12.241
	1	1.002	.965	1.000	-2.271	4.275
	2	-.725	.895	1.000	-3.762	2.313
	3	-2.195	.792	.323	-4.882	.492
	5	.046	.764	1.000	-2.547	2.639

5	6	2.106	.939	.820	-1.081	5.293
	7	1.746	.987	.995	-1.602	5.094
	8	3.338	1.010	.068	-.091	6.766
	9	4.388(*)	1.012	.001	.955	7.822
	10	5.936(*)	1.055	.000	2.357	9.514
	11	6.156(*)	1.108	.000	2.398	9.914
	12	5.645(*)	1.163	.000	1.698	9.592
	1	.956	1.080	1.000	-2.710	4.623
	2	-.770	1.034	1.000	-4.279	2.738
	3	-2.241	1.026	.863	-5.721	1.240
	4	-.046	.764	1.000	-2.639	2.547
	6	2.060	.740	.314	-.451	4.572
6	7	1.700	.886	.977	-1.305	4.706
	8	3.292(*)	.964	.046	.022	6.562
	9	4.343(*)	1.035	.002	.832	7.854
	10	5.890(*)	1.052	.000	2.319	9.461
	11	6.110(*)	1.074	.000	2.465	9.755
	12	5.600(*)	1.097	.000	1.878	9.321
	1	-1.104	1.103	1.000	-4.848	2.640
	2	-2.831	1.108	.521	-6.590	.929
	3	-4.301(*)	1.118	.010	-8.097	-.506
	4	-2.106	.939	.820	-5.293	1.081
	5	-2.060	.740	.314	-4.572	.451
	7	-.360	.650	1.000	-2.564	1.845
7	8	1.232	.786	1.000	-1.434	3.897
	9	2.282	.895	.525	-.754	5.318
	10	3.830(*)	.976	.007	.517	7.142
	11	4.050(*)	.988	.003	.696	7.404
	12	3.539(*)	.972	.021	.240	6.838
	1	-.744	1.115	1.000	-4.529	3.040
	2	-2.471	1.142	.876	-6.345	1.403
	3	-3.941(*)	1.158	.048	-7.871	-.011
	4	-1.746	.987	.995	-5.094	1.602

8	5	-1.700	.886	.977	-4.706	1.305
	6	.360	.650	1.000	-1.845	2.564
	8	1.591	.666	.688	-.669	3.852
	9	2.642	.786	.055	-.023	5.308
	10	4.189(*)	.872	.000	1.232	7.147
	11	4.410(*)	.900	.000	1.354	7.465
	12	3.899(*)	.859	.001	.983	6.816
	1	-2.336	1.119	.920	-6.132	1.461
	2	-4.062(*)	1.141	.028	-7.935	-.189
	3	-5.533(*)	1.156	.000	-9.457	-1.609
	4	-3.338	1.010	.068	-6.766	.091
	5	-3.292(*)	.964	.046	-6.562	-.022
9	6	-1.232	.786	1.000	-3.897	1.434
	7	-1.591	.666	.688	-3.852	.669
	9	1.051	.470	.826	-.545	2.646
	10	2.598(*)	.672	.009	.317	4.879
	11	2.818(*)	.699	.005	.447	5.189
	12	2.308	.715	.086	-.117	4.732
	1	-3.386	1.112	.154	-7.161	.388
	2	-5.113(*)	1.148	.001	-9.009	-1.217
	3	-6.584(*)	1.168	.000	-10.548	-2.619
	4	-4.388(*)	1.012	.001	-7.822	-.955
	5	-4.343(*)	1.035	.002	-7.854	-.832
	6	-2.282	.895	.525	-5.318	.754
10	7	-2.642	.786	.055	-5.308	.023
	8	-1.051	.470	.826	-2.646	.545
	10	1.547	.560	.331	-.354	3.448
	11	1.767	.649	.362	-.434	3.968
	12	1.257	.688	.991	-1.077	3.591
	1	-4.934(*)	1.137	.001	-8.793	-1.074
	2	-6.660(*)	1.171	.000	-10.635	-2.686
	3	-8.131(*)	1.207	.000	-12.227	-4.035
	4	-5.936(*)	1.055	.000	-9.514	-2.357

11	5	-5.890(*)	1.052	.000	-9.461	-2.319
	6	-3.830(*)	.976	.007	-7.142	-.517
	7	-4.189(*)	.872	.000	-7.147	-1.232
	8	-2.598(*)	.672	.009	-4.879	-.317
	9	-1.547	.560	.331	-3.448	.354
	11	.220	.393	1.000	-1.114	1.554
	12	-.290	.635	1.000	-2.446	1.865
	1	-5.154(*)	1.153	.001	-9.067	-1.240
	2	-6.880(*)	1.205	.000	-10.969	-2.791
	3	-8.351(*)	1.256	.000	-12.612	-4.090
	4	-6.156(*)	1.108	.000	-9.914	-2.398
12	5	-6.110(*)	1.074	.000	-9.755	-2.465
	6	-4.050(*)	.988	.003	-7.404	-.696
	7	-4.410(*)	.900	.000	-7.465	-1.354
	8	-2.818(*)	.699	.005	-5.189	-.447
	9	-1.767	.649	.362	-3.968	.434
	10	-.220	.393	1.000	-1.554	1.114
	12	-.511	.467	1.000	-2.095	1.074
	1	-4.643(*)	1.190	.008	-8.682	-.605
	2	-6.370(*)	1.232	.000	-10.549	-2.191
	3	-7.840(*)	1.297	.000	-12.241	-3.440
	4	-5.645(*)	1.163	.000	-9.592	-1.698
	5	-5.600(*)	1.097	.000	-9.321	-1.878
	6	-3.539(*)	.972	.021	-6.838	-.240
	7	-3.899(*)	.859	.001	-6.816	-.983
	8	-2.308	.715	.086	-4.732	.117
	9	-1.257	.688	.991	-3.591	1.077
	10	.290	.635	1.000	-1.865	2.446
	11	.511	.467	1.000	-1.074	2.095

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc \* year

Measure: MEASURE\_1

US Region of Inc	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	56.842	2.176	52.560	61.124
	2	58.421	2.300	53.895	62.947
	3	59.702	2.556	54.672	64.731
	4	54.965	2.289	50.462	59.468
	5	56.368	2.280	51.883	60.854
	6	52.123	2.144	47.905	56.341
	7	53.544	2.195	49.225	57.863
	8	52.772	2.090	48.661	56.883
	9	51.351	2.111	47.198	55.504
	10	48.351	1.929	44.556	52.146
	11	48.070	1.940	44.254	51.886
	12	48.895	2.120	44.724	53.065
Midwest	1	52.904	2.279	48.421	57.387
	2	55.500	2.409	50.762	60.238
	3	58.096	2.676	52.830	63.362
	4	57.750	2.396	53.036	62.464
	5	56.712	2.387	52.015	61.408
	6	54.981	2.245	50.565	59.397
	7	54.635	2.299	50.113	59.157
	8	52.558	2.188	48.253	56.862
	9	51.385	2.210	47.037	55.733
	10	50.538	2.020	46.565	54.512
	11	50.731	2.031	46.736	54.726
	12	50.731	2.219	46.364	55.097
South	1	49.014	1.121	46.809	51.219
	2	50.019	1.184	47.688	52.349
	3	50.553	1.316	47.964	53.143
	4	49.051	1.178	46.733	51.370



5	48.549	1.174	46.239	50.858
6	48.344	1.104	46.172	50.516
7	48.349	1.130	46.125	50.573
8	46.423	1.076	44.306	48.540
9	45.865	1.087	43.727	48.003
10	45.070	.993	43.116	47.024
11	44.498	.999	42.533	46.462
12	45.205	1.092	43.057	47.352

### ***General Linear Model of US Region of Inc. for Diversity***

#### **Between-Subjects Factors**

	Value Label	N
US Region of Inc	1 Northeast	57
	2 Midwest	52
	3 South	215

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	32036.162	11	2912.378	34.751	.000	.098	1.000
	Greenhouse-Geisser	32036.162	4.283	7479.409	34.751	.000	.098	1.000
	Huynh-Feldt	32036.162	4.375	7321.830	34.751	.000	.098	1.000
	Lower-bound	32036.162	1.000	32036.162	34.751	.000	.098	1.000
year * usreginc	Sphericity Assumed	2016.706	22	91.668	1.094	.345	.007	.848
	Greenhouse-Geisser	2016.706	8.566	235.418	1.094	.364	.007	.537
	Huynh-Feldt	2016.706	8.751	230.458	1.094	.364	.007	.544

Error(year)	Lower-bound	2016.706	2.000	1008.353	1.094	.336	.007	.242
	Sphericity Assumed	295920.945	3531	83.807				
	Greenhouse-Geisser	295920.945	1374.923	215.227				
	Huynh-Feldt	295920.945	1404.513	210.693				
	Lower-bound	295920.945	321.000	921.872				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	30878.180	1	30878.180	87.350	.000	.214	1.000
	Quadratic	846.613	1	846.613	5.019	.026	.015	.608
	Cubic	116.210	1	116.210	1.622	.204	.005	.246
year * usreginc	Linear	879.548	2	439.774	1.244	.290	.008	.270
	Quadratic	226.211	2	113.105	.671	.512	.004	.162
	Cubic	111.770	2	55.885	.780	.459	.005	.183
Error(year)	Linear	113473.538	321	353.500				
	Quadratic	54143.989	321	168.673				
	Cubic	22995.479	321	71.637				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	26869.616	2	13434.808	6.672	.001	.040	.913
Error	646340.801	321	2013.523				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. US Region of Inc

#### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	55.560	1.716	52.184	58.935
Midwest	47.051	1.796	43.517	50.585
South	49.567	.883	47.829	51.305

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	8.509(*)	2.484	.002	2.546	14.471
	South	5.993(*)	1.930	.006	1.361	10.625
Midwest	Northeast	-8.509(*)	2.484	.002	-14.471	-2.546
	South	-2.516	2.002	.507	-7.321	2.289
South	Northeast	-5.993(*)	1.930	.006	-10.625	-1.361
	Midwest	2.516	2.002	.507	-2.289	7.321

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2239.135	2	1119.567	6.672	.001	.040	.913
Error	53861.733	321	167.794				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.758	.616	43.546	45.970
2	45.584	.689	44.229	46.939
3	46.618	.794	45.056	48.179
4	48.617	.975	46.698	50.536
5	49.812	.991	47.863	51.761
6	50.663	1.100	48.498	52.828
7	51.980	1.145	49.728	54.233
8	53.028	1.171	50.725	55.332
9	53.336	1.216	50.943	55.729
10	54.350	1.242	51.907	56.793
11	55.289	1.279	52.772	57.806
12	54.677	1.243	52.232	57.122

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	-.826	.293	.290	-1.822	.170
	3	-1.859(*)	.476	.008	-3.476	-.243
	4	-3.859(*)	.715	.000	-6.286	-1.432
	5	-5.054(*)	.747	.000	-7.588	-2.519
	6	-5.905(*)	.928	.000	-9.053	-2.756
	7	-7.222(*)	.995	.000	-10.599	-3.845
	8	-8.270(*)	1.011	.000	-11.701	-4.839
	9	-8.578(*)	1.072	.000	-12.215	-4.941
	10	-9.592(*)	1.068	.000	-13.216	-5.967
	11	-10.530(*)	1.096	.000	-14.249	-6.812
	12	-9.918(*)	1.074	.000	-13.564	-6.272
2	1	.826	.293	.290	-.170	1.822
	3	-1.033	.384	.391	-2.336	.269
	4	-3.033(*)	.661	.000	-5.276	-.790
	5	-4.228(*)	.717	.000	-6.659	-1.796
	6	-5.079(*)	.873	.000	-8.040	-2.117
	7	-6.396(*)	.927	.000	-9.542	-3.250
	8	-7.444(*)	.941	.000	-10.638	-4.250
	9	-7.752(*)	1.020	.000	-11.214	-4.290
	10	-8.765(*)	1.017	.000	-12.216	-5.315
	11	-9.704(*)	1.040	.000	-13.232	-6.177
	12	-9.092(*)	1.020	.000	-12.555	-5.630
3	1	1.859(*)	.476	.008	.243	3.476
	2	1.033	.384	.391	-.269	2.336
	4	-1.999	.596	.057	-4.023	.024
	5	-3.194(*)	.704	.001	-5.582	-.806
	6	-4.045(*)	.878	.000	-7.024	-1.066
	7	-5.363(*)	.930	.000	-8.518	-2.207
	8	-6.410(*)	.908	.000	-9.492	-3.328
	9	-6.718(*)	.994	.000	-10.091	-3.346
	10	-7.732(*)	1.013	.000	-11.171	-4.293

4	11	-8.671(*)	1.013	.000	-12.109	-5.233
	12	-8.059(*)	.998	.000	-11.446	-4.672
	1	3.859(*)	.715	.000	1.432	6.286
	2	3.033(*)	.661	.000	.790	5.276
	3	1.999	.596	.057	-.024	4.023
	5	-1.195	.565	.907	-3.112	.723
	6	-2.046	.787	.476	-4.716	.624
	7	-3.363(*)	.903	.015	-6.427	-.299
	8	-4.411(*)	.866	.000	-7.349	-1.472
	9	-4.719(*)	.976	.000	-8.031	-1.406
	10	-5.733(*)	1.032	.000	-9.233	-2.232
	11	-6.671(*)	1.054	.000	-10.247	-3.096
5	12	-6.060(*)	1.037	.000	-9.578	-2.541
	1	5.054(*)	.747	.000	2.519	7.588
	2	4.228(*)	.717	.000	1.796	6.659
	3	3.194(*)	.704	.001	.806	5.582
	4	1.195	.565	.907	-.723	3.112
	6	-.851	.636	1.000	-3.011	1.309
	7	-2.169	.778	.310	-4.807	.470
	8	-3.216(*)	.804	.005	-5.944	-.488
	9	-3.524(*)	.901	.007	-6.583	-.465
	10	-4.538(*)	1.011	.001	-7.970	-1.106
	11	-5.477(*)	1.033	.000	-8.981	-1.973
	12	-4.865(*)	1.004	.000	-8.271	-1.459
6	1	5.905(*)	.928	.000	2.756	9.053
	2	5.079(*)	.873	.000	2.117	8.040
	3	4.045(*)	.878	.000	1.066	7.024
	4	2.046	.787	.476	-.624	4.716
	5	.851	.636	1.000	-1.309	3.011
	7	-1.317	.586	.816	-3.307	.672
	8	-2.365	.750	.110	-4.911	.181
	9	-2.673	.930	.249	-5.830	.484
	10	-3.687(*)	1.056	.035	-7.269	-.105

7	11	-4.626(*)	1.099	.002	-8.354	-.898
	12	-4.014(*)	1.045	.010	-7.559	-.469
	1	7.222(*)	.995	.000	3.845	10.599
	2	6.396(*)	.927	.000	3.250	9.542
	3	5.363(*)	.930	.000	2.207	8.518
	4	3.363(*)	.903	.015	.299	6.427
	5	2.169	.778	.310	-.470	4.807
	6	1.317	.586	.816	-.672	3.307
	8	-1.048	.588	.994	-3.043	.948
	9	-1.356	.823	.999	-4.149	1.437
	10	-2.369	.950	.583	-5.594	.856
	11	-3.308	1.007	.072	-6.725	.108
8	12	-2.696	.964	.303	-5.967	.574
	1	8.270(*)	1.011	.000	4.839	11.701
	2	7.444(*)	.941	.000	4.250	10.638
	3	6.410(*)	.908	.000	3.328	9.492
	4	4.411(*)	.866	.000	1.472	7.349
	5	3.216(*)	.804	.005	.488	5.944
	6	2.365	.750	.110	-.181	4.911
	7	1.048	.588	.994	-.948	3.043
	9	-.308	.639	1.000	-2.476	1.860
	10	-1.322	.834	1.000	-4.151	1.508
	11	-2.261	.889	.534	-5.279	.758
	12	-1.649	.879	.985	-4.630	1.333
9	1	8.578(*)	1.072	.000	4.941	12.215
	2	7.752(*)	1.020	.000	4.290	11.214
	3	6.718(*)	.994	.000	3.346	10.091
	4	4.719(*)	.976	.000	1.406	8.031
	5	3.524(*)	.901	.007	.465	6.583
	6	2.673	.930	.249	-.484	5.830
	7	1.356	.823	.999	-1.437	4.149
	8	.308	.639	1.000	-1.860	2.476
	10	-1.014	.680	1.000	-3.322	1.294

10	11	-1.953	.828	.718	-4.764	.859
	12	-1.341	.802	.999	-4.063	1.381
	1	9.592(*)	1.068	.000	5.967	13.216
	2	8.765(*)	1.017	.000	5.315	12.216
	3	7.732(*)	1.013	.000	4.293	11.171
	4	5.733(*)	1.032	.000	2.232	9.233
	5	4.538(*)	1.011	.001	1.106	7.970
	6	3.687(*)	1.056	.035	.105	7.269
	7	2.369	.950	.583	-.856	5.594
	8	1.322	.834	1.000	-1.508	4.151
	9	1.014	.680	1.000	-1.294	3.322
	11	-.939	.587	1.000	-2.930	1.052
11	12	-.327	.699	1.000	-2.699	2.045
	1	10.530(*)	1.096	.000	6.812	14.249
	2	9.704(*)	1.040	.000	6.177	13.232
	3	8.671(*)	1.013	.000	5.233	12.109
	4	6.671(*)	1.054	.000	3.096	10.247
	5	5.477(*)	1.033	.000	1.973	8.981
	6	4.626(*)	1.099	.002	.898	8.354
	7	3.308	1.007	.072	-.108	6.725
	8	2.261	.889	.534	-.758	5.279
	9	1.953	.828	.718	-.859	4.764
	10	.939	.587	1.000	-1.052	2.930
	12	.612	.501	1.000	-1.088	2.312
12	1	9.918(*)	1.074	.000	6.272	13.564
	2	9.092(*)	1.020	.000	5.630	12.555
	3	8.059(*)	.998	.000	4.672	11.446
	4	6.060(*)	1.037	.000	2.541	9.578
	5	4.865(*)	1.004	.000	1.459	8.271
	6	4.014(*)	1.045	.010	.469	7.559
	7	2.696	.964	.303	-.574	5.967
	8	1.649	.879	.985	-1.333	4.630
	9	1.341	.802	.999	-1.381	4.063



10	.327	.699	1.000	-2.045	2.699
11	-.612	.501	1.000	-2.312	1.088

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc \* year

Measure: MEASURE\_1

US Region of Inc	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	48.632	1.203	46.265	50.998
	2	49.912	1.345	47.267	52.558
	3	51.737	1.550	48.688	54.785
	4	53.053	1.904	49.306	56.799
	5	54.772	1.934	50.967	58.577
	6	54.842	2.148	50.615	59.069
	7	55.719	2.235	51.322	60.117
	8	56.719	2.286	52.222	61.216
	9	58.263	2.375	53.592	62.935
	10	59.561	2.424	54.793	64.330
	11	62.719	2.498	57.805	67.633
	12	60.789	2.426	56.016	65.563
Midwest	1	42.481	1.259	40.003	44.958
	2	43.115	1.408	40.346	45.885
	3	43.442	1.622	40.250	46.634
	4	44.981	1.994	41.058	48.903
	5	45.962	2.025	41.978	49.945
	6	47.654	2.249	43.228	52.079
	7	49.250	2.340	44.646	53.854
	8	50.635	2.393	45.926	55.343
	9	48.462	2.486	43.571	53.353
	10	49.712	2.538	44.719	54.704

South	11	49.519	2.615	44.374	54.664
	12	49.404	2.540	44.406	54.401
	1	43.163	.619	41.944	44.381
	2	43.726	.692	42.364	45.088
	3	44.674	.798	43.105	46.244
	4	47.819	.981	45.889	49.748
	5	48.702	.996	46.743	50.662
	6	49.493	1.106	47.317	51.669
	7	50.972	1.151	48.708	53.236
	8	51.730	1.177	49.415	54.046
	9	53.284	1.223	50.878	55.689
	10	53.777	1.248	51.321	56.232
	11	53.628	1.286	51.098	56.158
	12	53.837	1.249	51.379	56.295

### ***General Linear Model of US Region of Inc. for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
US Region of Inc	1	Northeast	57
	2	Midwest	52
	3	South	215

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	6499.686	11	590.881	5.500	.000	.017	1.000

year * usreginc	Greenhouse-Geisser	6499.686	3.924	1656.463	5.500	.000	.017	.975
	Huynh-Feldt	6499.686	4.003	1623.619	5.500	.000	.017	.977
	Lower-bound	6499.686	1.000	6499.686	5.500	.020	.017	.647
	Sphericity Assumed	2134.428	22	97.019	.903	.591	.006	.748
	Greenhouse-Geisser	2134.428	7.848	271.982	.903	.512	.006	.423
	Huynh-Feldt	2134.428	8.006	266.590	.903	.513	.006	.428
	Lower-bound	2134.428	2.000	1067.214	.903	.406	.006	.206
Error(year)	Sphericity Assumed	379338.241	3531	107.431				
	Greenhouse-Geisser	379338.241	1259.551	301.169				
	Huynh-Feldt	379338.241	1285.030	295.198				
	Lower-bound	379338.241	321.000	1181.739				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3454.405	1	3454.405	7.008	.009	.021	.752
	Quadratic	2501.810	1	2501.810	12.805	.000	.038	.946
	Cubic	14.778	1	14.778	.120	.729	.000	.064
year * usreginc	Linear	934.034	2	467.017	.947	.389	.006	.214
	Quadratic	119.751	2	59.876	.306	.736	.002	.099
	Cubic	134.497	2	67.248	.547	.579	.003	.140
Error(year)	Linear	158219.133	321	492.894				
	Quadratic	62717.183	321	195.381				
	Cubic	39472.217	321	122.966				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	8749.018	2	4374.509	2.131	.120	.013	.436
Error	658836.619	321	2052.451				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Region of Inc

#### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	48.924	1.732	45.516	52.332
Midwest	53.428	1.814	49.860	56.996
South	49.506	.892	47.751	51.261

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-4.504	2.508	.205	-10.524	1.516
	South	-.582	1.948	.987	-5.259	4.094
Midwest	Northeast	4.504	2.508	.205	-1.516	10.524
	South	3.922	2.021	.151	-.929	8.773
South	Northeast	.582	1.948	.987	-4.094	5.259
	Midwest	-3.922	2.021	.151	-8.773	.929

Based on estimated marginal means

a. Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	729.085	2	364.542	2.131	.120	.013	.436
Error	54903.052	321	171.038				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	46.718	.835	45.075	48.360
2	48.540	.940	46.692	50.389
3	49.423	.989	47.477	51.369
4	51.060	1.057	48.981	53.140
5	51.303	1.102	49.136	53.471
6	50.745	1.097	48.588	52.903
7	51.453	1.170	49.150	53.756
8	52.090	1.245	49.641	54.538
9	51.637	1.213	49.251	54.023
10	52.612	1.211	50.229	54.996
11	51.250	1.198	48.893	53.608
12	50.600	1.225	48.189	53.011

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.823	.645	.281	-4.010	.365
	3	-2.706(*)	.759	.027	-5.280	-.131
	4	-4.343(*)	.999	.001	-7.734	-.952
	5	-4.586(*)	.999	.000	-7.977	-1.195
	6	-4.028(*)	.995	.004	-7.406	-.650
	7	-4.735(*)	1.051	.001	-8.301	-1.170
	8	-5.372(*)	1.173	.000	-9.351	-1.393
	9	-4.919(*)	1.153	.002	-8.833	-1.006
	10	-5.895(*)	1.232	.000	-10.076	-1.714
	11	-4.533(*)	1.246	.021	-8.760	-.305
	12	-3.882	1.271	.149	-8.197	.432
2	1	1.823	.645	.281	-.365	4.010
	3	-.883	.592	1.000	-2.892	1.127
	4	-2.520	.906	.315	-5.593	.553
	5	-2.763	.958	.243	-6.015	.489
	6	-2.205	.982	.817	-5.537	1.128
	7	-2.913	1.033	.287	-6.418	.593
	8	-3.549	1.169	.157	-7.514	.416
	9	-3.096	1.151	.392	-7.001	.809
	10	-4.072	1.224	.062	-8.224	.080
	11	-2.710	1.240	.862	-6.918	1.499
	12	-2.059	1.262	.999	-6.341	2.222
3	1	2.706(*)	.759	.027	.131	5.280
	2	.883	.592	1.000	-1.127	2.892
	4	-1.637	.728	.814	-4.107	.832
	5	-1.880	.893	.911	-4.912	1.151

4	6	-1.322	.965	1.000	-4.596	1.952
	7	-2.030	.988	.936	-5.383	1.323
	8	-2.667	1.113	.681	-6.444	1.111
	9	-2.214	1.088	.944	-5.906	1.479
	10	-3.189	1.155	.333	-7.110	.731
	11	-1.827	1.175	1.000	-5.813	2.159
	12	-1.177	1.193	1.000	-5.224	2.870
	1	4.343(*)	.999	.001	.952	7.734
	2	2.520	.906	.315	-.553	5.593
	3	1.637	.728	.814	-.832	4.107
	5	-.243	.672	1.000	-2.524	2.038
	6	.315	.941	1.000	-2.878	3.508
5	7	-.393	.985	1.000	-3.736	2.951
	8	-1.029	1.117	1.000	-4.818	2.760
	9	-.576	1.108	1.000	-4.336	3.184
	10	-1.552	1.201	1.000	-5.626	2.522
	11	-.190	1.206	1.000	-4.284	3.904
	12	.460	1.239	1.000	-3.743	4.664
	1	4.586(*)	.999	.000	1.195	7.977
	2	2.763	.958	.243	-.489	6.015
	3	1.880	.893	.911	-1.151	4.912
	4	.243	.672	1.000	-2.038	2.524
	6	.558	.779	1.000	-2.086	3.203
	7	-.150	.909	1.000	-3.234	2.935
6	8	-.786	1.109	1.000	-4.550	2.978
	9	-.333	1.087	1.000	-4.023	3.357
	10	-1.309	1.216	1.000	-5.436	2.818
	11	.053	1.246	1.000	-4.173	4.280
	12	.703	1.284	1.000	-3.654	5.061
	1	4.028(*)	.995	.004	.650	7.406
	2	2.205	.982	.817	-1.128	5.537
	3	1.322	.965	1.000	-1.952	4.596
	4	-.315	.941	1.000	-3.508	2.878

7	5	-.558	.779	1.000	-3.203	2.086
	7	-.708	.544	1.000	-2.554	1.138
	8	-1.344	.788	.998	-4.019	1.330
	9	-.892	.834	1.000	-3.722	1.938
	10	-1.867	.990	.984	-5.228	1.494
	11	-.505	1.060	1.000	-4.103	3.093
	12	.145	1.088	1.000	-3.548	3.838
	1	4.735(*)	1.051	.001	1.170	8.301
	2	2.913	1.033	.287	-.593	6.418
	3	2.030	.988	.936	-1.323	5.383
	4	.393	.985	1.000	-2.951	3.736
	5	.150	.909	1.000	-2.935	3.234
8	6	.708	.544	1.000	-1.138	2.554
	8	-.637	.631	1.000	-2.779	1.506
	9	-.184	.733	1.000	-2.673	2.305
	10	-1.159	.929	1.000	-4.311	1.992
	11	.203	1.013	1.000	-3.236	3.642
	12	.853	1.068	1.000	-2.770	4.476
	1	5.372(*)	1.173	.000	1.393	9.351
	2	3.549	1.169	.157	-.416	7.514
	3	2.667	1.113	.681	-1.111	6.444
	4	1.029	1.117	1.000	-2.760	4.818
	5	.786	1.109	1.000	-2.978	4.550
	6	1.344	.788	.998	-1.330	4.019
9	7	.637	.631	1.000	-1.506	2.779
	9	.453	.514	1.000	-1.292	2.197
	10	-.523	.775	1.000	-3.153	2.107
	11	.839	.868	1.000	-2.107	3.786
	12	1.490	.934	1.000	-1.679	4.659
	1	4.919(*)	1.153	.002	1.006	8.833
	2	3.096	1.151	.392	-.809	7.001
	3	2.214	1.088	.944	-1.479	5.906
	4	.576	1.108	1.000	-3.184	4.336



10	5	.333	1.087	1.000	-3.357	4.023
	6	.892	.834	1.000	-1.938	3.722
	7	.184	.733	1.000	-2.305	2.673
	8	-.453	.514	1.000	-2.197	1.292
	10	-.976	.641	1.000	-3.150	1.199
	11	.387	.773	1.000	-2.235	3.008
	12	1.037	.849	1.000	-1.843	3.917
	1	5.895(*)	1.232	.000	1.714	10.076
	2	4.072	1.224	.062	-.080	8.224
	3	3.189	1.155	.333	-.731	7.110
	4	1.552	1.201	1.000	-2.522	5.626
	5	1.309	1.216	1.000	-2.818	5.436
11	6	1.867	.990	.984	-1.494	5.228
	7	1.159	.929	1.000	-1.992	4.311
	8	.523	.775	1.000	-2.107	3.153
	9	.976	.641	1.000	-1.199	3.150
	11	1.362	.479	.268	-.262	2.986
	12	2.012	.602	.060	-.032	4.057
	1	4.533(*)	1.246	.021	.305	8.760
	2	2.710	1.240	.862	-1.499	6.918
	3	1.827	1.175	1.000	-2.159	5.813
	4	.190	1.206	1.000	-3.904	4.284
	5	-.053	1.246	1.000	-4.280	4.173
	6	.505	1.060	1.000	-3.093	4.103
12	7	-.203	1.013	1.000	-3.642	3.236
	8	-.839	.868	1.000	-3.786	2.107
	9	-.387	.773	1.000	-3.008	2.235
	10	-1.362	.479	.268	-2.986	.262
	12	.650	.383	.998	-.649	1.950
	1	3.882	1.271	.149	-.432	8.197
	2	2.059	1.262	.999	-2.222	6.341
	3	1.177	1.193	1.000	-2.870	5.224
	4	-.460	1.239	1.000	-4.664	3.743

5	-.703	1.284	1.000	-5.061	3.654
6	-.145	1.088	1.000	-3.838	3.548
7	-.853	1.068	1.000	-4.476	2.770
8	-1.490	.934	1.000	-4.659	1.679
9	-1.037	.849	1.000	-3.917	1.843
10	-2.012	.602	.060	-4.057	.032
11	-.650	.383	.998	-1.950	.649

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc \* year

Measure: MEASURE\_1

US Region of Inc	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	46.491	1.630	43.284	49.698
	2	48.035	1.835	44.425	51.645
	3	48.316	1.931	44.517	52.115
	4	49.719	2.063	45.660	53.779
	5	48.737	2.151	44.506	52.968
	6	50.719	2.141	46.507	54.932
	7	51.018	2.285	46.522	55.513
	8	49.754	2.430	44.974	54.535
	9	48.895	2.368	44.237	53.553
	10	49.877	2.365	45.224	54.530
	11	48.175	2.339	43.573	52.778
	12	47.351	2.393	42.644	52.058
Midwest	1	48.462	1.707	45.104	51.819
	2	50.154	1.921	46.375	53.933
	3	52.000	2.022	48.022	55.978
	4	54.615	2.160	50.365	58.865
	5	54.615	2.252	50.186	59.045

South	6	52.000	2.242	47.590	56.410
	7	52.635	2.392	47.928	57.341
	8	54.942	2.544	49.937	59.947
	9	54.481	2.479	49.604	59.358
	10	56.769	2.476	51.898	61.641
	11	55.385	2.449	50.566	60.203
	12	55.077	2.505	50.149	60.005
	1	45.200	.839	43.549	46.851
	2	47.433	.945	45.574	49.291
	3	47.953	.994	45.997	49.910
	4	48.847	1.062	46.756	50.937
	5	50.558	1.107	48.380	52.737
	6	49.516	1.102	47.347	51.685
	7	50.707	1.177	48.392	53.022
	8	51.572	1.251	49.111	54.033
	9	51.535	1.219	49.136	53.933
	10	51.191	1.218	48.795	53.586
	11	50.191	1.204	47.821	52.560
	12	49.372	1.232	46.948	51.796

### ***General Linear Model of US Region of Inc. for Environment***

#### **Between-Subjects Factors**

		Value Label	N
US Region of Inc	1	Northeast	57
	2	Midwest	52
	3	South	215

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	4192.294	11	381.118	4.637	.000	.014	1.000
	Greenhouse-Geisser	4192.294	4.925	851.296	4.637	.000	.014	.975
	Huynh-Feldt	4192.294	5.042	831.517	4.637	.000	.014	.977
	Lower-bound	4192.294	1.000	4192.294	4.637	.032	.014	.574
year * usreginc	Sphericity Assumed	3111.022	22	141.410	1.721	.020	.011	.981
	Greenhouse-Geisser	3111.022	9.849	315.865	1.721	.072	.011	.820
	Huynh-Feldt	3111.022	10.083	308.527	1.721	.070	.011	.827
	Lower-bound	3111.022	2.000	1555.511	1.721	.181	.011	.360
Error(year)	Sphericity Assumed	290203.503	3531	82.187				
	Greenhouse-Geisser	290203.503	1580.797	183.581				
	Huynh-Feldt	290203.503	1618.399	179.315				
	Lower-bound	290203.503	321.000	904.061				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	1782.567	1	1782.567	6.107	.014	.019	.693
	Quadratic	2.759	1	2.759	.017	.898	.000	.052
	Cubic	1301.628	1	1301.628	11.620	.001	.035	.925
year * usreginc	Linear	1937.113	2	968.557	3.318	.037	.020	.626
	Quadratic	6.730	2	3.365	.020	.980	.000	.053
	Cubic	699.993	2	349.997	3.124	.045	.019	.598
Error(year)	Linear	93692.577	321	291.877				
	Quadratic	53449.730	321	166.510				
	Cubic	35957.875	321	112.018				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	13262.704	2	6631.352	2.625	.074	.016	.521
Error	810781.744	321	2525.800				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. US Region of Inc

##### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	47.838	1.922	44.057	51.618
Midwest	54.003	2.012	50.045	57.961
South	49.784	.989	47.838	51.731

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-6.165	2.782	.080	-12.843	.512
	South	-1.947	2.161	.748	-7.135	3.241
Midwest	Northeast	6.165	2.782	.080	-.512	12.843

South	South	4.219	2.242	.172	-1.163	9.600
	Northeast	1.947	2.161	.748	-3.241	7.135
	Midwest	-4.219	2.242	.172	-9.600	1.163

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1105.225	2	552.613	2.625	.074	.016	.521
Error	67565.145	321	210.483				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.700	.989	48.754	52.645
2	49.307	1.052	47.237	51.377
3	48.547	1.117	46.349	50.744
4	48.114	1.165	45.821	50.407
5	49.681	1.121	47.476	51.887
6	51.072	1.167	48.776	53.367
7	51.646	1.243	49.201	54.091
8	51.889	1.247	49.435	54.342
9	51.572	1.185	49.240	53.903
10	51.827	1.172	49.522	54.133

11	50.556	1.192	48.211	52.902
12	51.591	1.087	49.454	53.729

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.393	.649	.888	-.809	3.594
	3	2.153	.775	.318	-.477	4.782
	4	2.586	.882	.211	-.405	5.577
	5	1.018	.912	1.000	-2.076	4.112
	6	-.372	.928	1.000	-3.523	2.779
	7	-.947	.955	1.000	-4.188	2.294
	8	-1.189	.993	1.000	-4.560	2.182
	9	-.872	1.009	1.000	-4.295	2.551
	10	-1.128	.954	1.000	-4.364	2.108
	11	.143	1.051	1.000	-3.422	3.708
	12	-.892	1.029	1.000	-4.382	2.598
2	1	-1.393	.649	.888	-3.594	.809
	3	.760	.527	1.000	-1.028	2.548
	4	1.193	.712	.999	-1.224	3.611
	5	-.375	.813	1.000	-3.132	2.383
	6	-1.765	.959	.990	-5.020	1.491
	7	-2.339	.982	.695	-5.673	.994
	8	-2.582	1.005	.508	-5.993	.830
	9	-2.265	1.010	.820	-5.692	1.163
	10	-2.521	.934	.384	-5.689	.648
	11	-1.249	.993	1.000	-4.617	2.119
	12	-2.284	1.038	.851	-5.805	1.236
3	1	-2.153	.775	.318	-4.782	.477

4	2	-.760	.527	1.000	-2.548	1.028
	4	.433	.714	1.000	-1.988	2.854
	5	-1.135	.856	1.000	-4.041	1.771
	6	-2.525	.940	.397	-5.716	.666
	7	-3.100	.979	.106	-6.422	.223
	8	-3.342(*)	.985	.050	-6.683	-.001
	9	-3.025	.993	.153	-6.394	.344
	10	-3.281(*)	.944	.038	-6.484	-.077
	11	-2.010	1.076	.986	-5.660	1.641
	12	-3.045	1.091	.309	-6.748	.658
	1	-2.586	.882	.211	-5.577	.405
	2	-1.193	.712	.999	-3.611	1.224
5	3	-.433	.714	1.000	-2.854	1.988
	5	-1.568	.636	.610	-3.725	.589
	6	-2.958	.883	.058	-5.954	.038
	7	-3.533(*)	.969	.020	-6.821	-.244
	8	-3.775(*)	.997	.012	-7.159	-.391
	9	-3.458(*)	.985	.033	-6.800	-.116
	10	-3.714(*)	.983	.012	-7.050	-.377
	11	-2.443	1.094	.827	-6.154	1.269
	12	-3.478	1.090	.098	-7.178	.222
	1	-1.018	.912	1.000	-4.112	2.076
	2	.375	.813	1.000	-2.383	3.132
	3	1.135	.856	1.000	-1.771	4.041
6	4	1.568	.636	.610	-.589	3.725
	6	-1.390	.728	.979	-3.860	1.080
	7	-1.965	.823	.689	-4.758	.828
	8	-2.207	.890	.596	-5.226	.812
	9	-1.890	.860	.853	-4.807	1.027
	10	-2.146	.876	.626	-5.117	.825
	11	-.875	.945	1.000	-4.081	2.332
	12	-1.910	.962	.961	-5.175	1.355
	1	.372	.928	1.000	-2.779	3.523



7	2	1.765	.959	.990	-1.491	5.020
	3	2.525	.940	.397	-.666	5.716
	4	2.958	.883	.058	-.038	5.954
	5	1.390	.728	.979	-1.080	3.860
	7	-.575	.475	1.000	-2.186	1.036
	8	-.817	.642	1.000	-2.995	1.361
	9	-.500	.687	1.000	-2.832	1.831
	10	-.756	.753	1.000	-3.310	1.798
	11	.515	.928	1.000	-2.635	3.665
	12	-.520	.953	1.000	-3.755	2.715
	1	.947	.955	1.000	-2.294	4.188
	2	2.339	.982	.695	-.994	5.673
8	3	3.100	.979	.106	-.223	6.422
	4	3.533(*)	.969	.020	.244	6.821
	5	1.965	.823	.689	-.828	4.758
	6	.575	.475	1.000	-1.036	2.186
	8	-.242	.498	1.000	-1.932	1.447
	9	.075	.593	1.000	-1.939	2.088
	10	-.181	.672	1.000	-2.462	2.100
	11	1.090	.892	1.000	-1.937	4.118
	12	.055	.919	1.000	-3.062	3.172
	1	1.189	.993	1.000	-2.182	4.560
	2	2.582	1.005	.508	-.830	5.993
	3	3.342(*)	.985	.050	.001	6.683
9	4	3.775(*)	.997	.012	.391	7.159
	5	2.207	.890	.596	-.812	5.226
	6	.817	.642	1.000	-1.361	2.995
	7	.242	.498	1.000	-1.447	1.932
	9	.317	.410	1.000	-1.073	1.707
	10	.061	.565	1.000	-1.856	1.979
	11	1.332	.860	1.000	-1.585	4.249
	12	.297	.925	1.000	-2.843	3.437
	1	.872	1.009	1.000	-2.551	4.295

10	2	2.265	1.010	.820	-1.163	5.692
	3	3.025	.993	.153	-.344	6.394
	4	3.458(*)	.985	.033	.116	6.800
	5	1.890	.860	.853	-1.027	4.807
	6	.500	.687	1.000	-1.831	2.832
	7	-.075	.593	1.000	-2.088	1.939
	8	-.317	.410	1.000	-1.707	1.073
	10	-.256	.524	1.000	-2.033	1.522
	11	1.015	.774	1.000	-1.611	3.642
	12	-.020	.841	1.000	-2.873	2.833
	1	1.128	.954	1.000	-2.108	4.364
	2	2.521	.934	.384	-.648	5.689
11	3	3.281(*)	.944	.038	.077	6.484
	4	3.714(*)	.983	.012	.377	7.050
	5	2.146	.876	.626	-.825	5.117
	6	.756	.753	1.000	-1.798	3.310
	7	.181	.672	1.000	-2.100	2.462
	8	-.061	.565	1.000	-1.979	1.856
	9	.256	.524	1.000	-1.522	2.033
	11	1.271	.632	.952	-.873	3.415
	12	.236	.743	1.000	-2.287	2.759
	1	-.143	1.051	1.000	-3.708	3.422
	2	1.249	.993	1.000	-2.119	4.617
	3	2.010	1.076	.986	-1.641	5.660
12	4	2.443	1.094	.827	-1.269	6.154
	5	.875	.945	1.000	-2.332	4.081
	6	-.515	.928	1.000	-3.665	2.635
	7	-1.090	.892	1.000	-4.118	1.937
	8	-1.332	.860	1.000	-4.249	1.585
	9	-1.015	.774	1.000	-3.642	1.611
	10	-1.271	.632	.952	-3.415	.873
	12	-1.035	.605	.998	-3.088	1.018
	1	.892	1.029	1.000	-2.598	4.382

2	2.284	1.038	.851	-1.236	5.805
3	3.045	1.091	.309	-.658	6.748
4	3.478	1.090	.098	-.222	7.178
5	1.910	.962	.961	-1.355	5.175
6	.520	.953	1.000	-2.715	3.755
7	-.055	.919	1.000	-3.172	3.062
8	-.297	.925	1.000	-3.437	2.843
9	.020	.841	1.000	-2.833	2.873
10	-.236	.743	1.000	-2.759	2.287
11	1.035	.605	.998	-1.018	3.088

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc\* year

Measure: MEASURE\_1

US Region of Inc	year	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Northeast	1	48.632	1.931	44.833	52.430
	2	46.860	2.054	42.819	50.900
	3	45.070	2.181	40.780	49.360
	4	44.316	2.275	39.839	48.792
	5	46.368	2.188	42.063	50.673
	6	49.351	2.278	44.870	53.832
	7	49.649	2.426	44.876	54.422
	8	49.649	2.435	44.859	54.439
	9	48.614	2.314	44.062	53.166
	10	49.211	2.287	44.710	53.711
	11	47.719	2.327	43.140	52.298
	12	48.614	2.121	44.440	52.788
Midwest	1	53.058	2.022	49.080	57.035
	2	51.596	2.150	47.366	55.827

South	3	50.788	2.283	46.297	55.280
	4	50.769	2.382	46.082	55.456
	5	53.192	2.291	48.685	57.700
	6	53.673	2.385	48.982	58.365
	7	54.481	2.540	49.483	59.478
	8	55.942	2.549	50.927	60.957
	9	56.096	2.423	51.330	60.862
	10	56.923	2.395	52.211	61.635
	11	55.596	2.437	50.802	60.390
	12	55.923	2.221	51.553	60.293
	1	50.409	.994	48.453	52.365
	2	49.465	1.058	47.385	51.546
	3	49.781	1.123	47.573	51.990
	4	49.256	1.172	46.951	51.561
	5	49.484	1.127	47.267	51.700
	6	50.191	1.173	47.883	52.498
	7	50.809	1.249	48.352	53.267
	8	50.074	1.254	47.608	52.541
	9	50.005	1.191	47.661	52.349
	10	49.349	1.178	47.032	51.666
	11	48.353	1.198	45.996	50.711
	12	50.237	1.092	48.088	52.386

### ***General Linear Model of US Region of Inc. for Product***

#### **Between-Subjects Factors**

		Value Label	N
US Region of Inc	1	Northeast	57
	2	Midwest	52

3	South	215
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### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	9271.077	11	842.825	9.588	.000	.029	1.000
	Greenhouse-Geisser	9271.077	3.470	2671.851	9.588	.000	.029	.999
	Huynh-Feldt	9271.077	3.534	2623.163	9.588	.000	.029	.999
	Lower-bound	9271.077	1.000	9271.077	9.588	.002	.029	.870
year * usreginc	Sphericity Assumed	2452.995	22	111.500	1.268	.180	.008	.910
	Greenhouse-Geisser	2452.995	6.940	353.467	1.268	.263	.008	.547
	Huynh-Feldt	2452.995	7.069	347.026	1.268	.262	.008	.553
	Lower-bound	2452.995	2.000	1226.498	1.268	.283	.008	.275
Error(year)	Sphericity Assumed	310386.249	3531	87.903				
	Greenhouse-Geisser	310386.249	1113.841	278.663				
	Huynh-Feldt	310386.249	1134.514	273.585				
	Lower-bound	310386.249	321.000	966.935				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	8327.138	1	8327.138	18.504	.000	.055	.990
	Quadratic	336.239	1	336.239	2.173	.141	.007	.312
	Cubic	1.881	1	1.881	.019	.891	.000	.052
year * usreginc	Linear	1402.527	2	701.263	1.558	.212	.010	.330
	Quadratic	507.925	2	253.963	1.642	.195	.010	.346
	Cubic	84.455	2	42.228	.426	.654	.003	.119
Error(year)	Linear	144457.069	321	450.022				

Quadratic	49659.888	321	154.704				
Cubic	31822.032	321	99.134				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	6360.433	2	3180.217	1.336	.264	.008	.288
Error	764378.483	321	2381.241				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Region of Inc

#### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	48.035	1.866	44.364	51.706
Midwest	52.429	1.953	48.586	56.273
South	49.871	.961	47.980	51.761

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

Northeast	Midwest	-4.394	2.701	.283	-10.878	2.090
	South	-1.835	2.099	.764	-6.873	3.202
Midwest	Northeast	4.394	2.701	.283	-2.090	10.878
	South	2.559	2.177	.562	-2.666	7.784
South	Northeast	1.835	2.099	.764	-3.202	6.873
	Midwest	-2.559	2.177	.562	-7.784	2.666

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	530.036	2	265.018	1.336	.264	.008	.288
Error	63698.207	321	198.437				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.900	.984	49.963	53.836
2	52.335	1.062	50.247	54.424
3	52.883	1.037	50.844	54.923
4	51.603	1.091	49.456	53.750
5	50.827	1.051	48.759	52.896

6	50.083	1.069	47.979	52.187
7	49.905	1.138	47.666	52.143
8	49.914	1.163	47.626	52.203
9	49.166	1.185	46.835	51.498
10	49.105	1.210	46.725	51.486
11	47.201	1.272	44.698	49.704
12	46.417	1.291	43.878	48.956

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.436	.646	1.000	-2.629	1.757
	3	-.984	.734	1.000	-3.475	1.507
	4	.297	.859	1.000	-2.618	3.211
	5	1.072	.934	1.000	-2.098	4.243
	6	1.817	.965	.984	-1.458	5.091
	7	1.995	1.056	.983	-1.587	5.577
	8	1.985	1.046	.981	-1.564	5.534
	9	2.733	1.080	.545	-.932	6.398
	10	2.794	1.074	.475	-.851	6.439
	11	4.699(*)	1.203	.007	.618	8.779
	12	5.483(*)	1.229	.001	1.312	9.654
2	1	.436	.646	1.000	-1.757	2.629
	3	-.548	.510	1.000	-2.280	1.183
	4	.732	.785	1.000	-1.932	3.397
	5	1.508	.910	.999	-1.579	4.595
	6	2.252	.953	.712	-.981	5.486
	7	2.431	1.051	.759	-1.135	5.996
	8	2.421	1.051	.767	-1.144	5.986



3	9	3.169	1.090	.227	-.529	6.868
	10	3.230	1.099	.208	-.499	6.959
	11	5.134(*)	1.223	.002	.986	9.283
	12	5.918(*)	1.264	.000	1.628	10.209
	1	.984	.734	1.000	-1.507	3.475
	2	.548	.510	1.000	-1.183	2.280
	4	1.280	.642	.958	-.898	3.459
	5	2.056	.797	.495	-.648	4.760
	6	2.800	.908	.136	-.280	5.880
	7	2.979	1.019	.217	-.479	6.437
	8	2.969	1.012	.211	-.465	6.403
	9	3.717(*)	1.072	.038	.081	7.354
4	10	3.778(*)	1.102	.044	.037	7.519
	11	5.683(*)	1.203	.000	1.599	9.766
	12	6.467(*)	1.234	.000	2.281	10.652
	1	-.297	.859	1.000	-3.211	2.618
	2	-.732	.785	1.000	-3.397	1.932
	3	-1.280	.642	.958	-3.459	.898
	5	.776	.611	1.000	-1.297	2.848
	6	1.520	.792	.978	-1.168	4.208
	7	1.698	.913	.987	-1.401	4.798
	8	1.689	.951	.995	-1.538	4.916
	9	2.437	1.018	.682	-1.016	5.890
	10	2.498	1.053	.704	-1.075	6.070
5	11	4.402(*)	1.162	.012	.460	8.345
	12	5.186(*)	1.186	.001	1.162	9.210
	1	-1.072	.934	1.000	-4.243	2.098
	2	-1.508	.910	.999	-4.595	1.579
	3	-2.056	.797	.495	-4.760	.648
	4	-.776	.611	1.000	-2.848	1.297
	6	.744	.567	1.000	-1.179	2.667
	7	.923	.742	1.000	-1.594	3.439
	8	.913	.803	1.000	-1.811	3.637

6	9	1.661	.892	.987	-1.366	4.689
	10	1.722	.929	.988	-1.430	4.874
	11	3.626(*)	1.023	.029	.155	7.097
	12	4.410(*)	1.055	.002	.830	7.991
	1	-1.817	.965	.984	-5.091	1.458
	2	-2.252	.953	.712	-5.486	.981
	3	-2.800	.908	.136	-5.880	.280
	4	-1.520	.792	.978	-4.208	1.168
	5	-.744	.567	1.000	-2.667	1.179
	7	.178	.485	1.000	-1.468	1.825
	8	.169	.592	1.000	-1.841	2.178
	9	.917	.708	1.000	-1.486	3.319
7	10	.978	.752	1.000	-1.573	3.528
	11	2.882	.900	.094	-.171	5.936
	12	3.666(*)	.923	.006	.534	6.798
	1	-1.995	1.056	.983	-5.577	1.587
	2	-2.431	1.051	.759	-5.996	1.135
	3	-2.979	1.019	.217	-6.437	.479
	4	-1.698	.913	.987	-4.798	1.401
	5	-.923	.742	1.000	-3.439	1.594
	6	-.178	.485	1.000	-1.825	1.468
	8	-.010	.379	1.000	-1.295	1.276
	9	.738	.591	1.000	-1.268	2.744
	10	.799	.714	1.000	-1.622	3.220
8	11	2.704	.867	.122	-.237	5.645
	12	3.488(*)	.902	.009	.428	6.548
	1	-1.985	1.046	.981	-5.534	1.564
	2	-2.421	1.051	.767	-5.986	1.144
	3	-2.969	1.012	.211	-6.403	.465
	4	-1.689	.951	.995	-4.916	1.538
	5	-.913	.803	1.000	-3.637	1.811
	6	-.169	.592	1.000	-2.178	1.841
	7	.010	.379	1.000	-1.276	1.295

9	9	.748	.464	.999	-.828	2.324
	10	.809	.633	1.000	-1.339	2.956
	11	2.713	.807	.056	-.026	5.453
	12	3.497(*)	.864	.004	.565	6.430
	1	-2.733	1.080	.545	-6.398	.932
	2	-3.169	1.090	.227	-6.868	.529
	3	-3.717(*)	1.072	.038	-7.354	-.081
	4	-2.437	1.018	.682	-5.890	1.016
	5	-1.661	.892	.987	-4.689	1.366
	6	-.917	.708	1.000	-3.319	1.486
	7	-.738	.591	1.000	-2.744	1.268
	8	-.748	.464	.999	-2.324	.828
10	10	.061	.429	1.000	-1.395	1.517
	11	1.965	.640	.142	-.206	4.136
	12	2.749(*)	.734	.014	.258	5.241
	1	-2.794	1.074	.475	-6.439	.851
	2	-3.230	1.099	.208	-6.959	.499
	3	-3.778(*)	1.102	.044	-7.519	-.037
	4	-2.498	1.053	.704	-6.070	1.075
	5	-1.722	.929	.988	-4.874	1.430
	6	-.978	.752	1.000	-3.528	1.573
	7	-.799	.714	1.000	-3.220	1.622
	8	-.809	.633	1.000	-2.956	1.339
	9	-.061	.429	1.000	-1.517	1.395
11	11	1.904(*)	.516	.017	.155	3.654
	12	2.689(*)	.640	.002	.516	4.861
	1	-4.699(*)	1.203	.007	-8.779	-.618
	2	-5.134(*)	1.223	.002	-9.283	-.986
	3	-5.683(*)	1.203	.000	-9.766	-1.599
	4	-4.402(*)	1.162	.012	-8.345	-.460
	5	-3.626(*)	1.023	.029	-7.097	-.155
	6	-2.882	.900	.094	-5.936	.171
	7	-2.704	.867	.122	-5.645	.237

12	8	-2.713	.807	.056	-5.453	.026
	9	-1.965	.640	.142	-4.136	.206
	10	-1.904(*)	.516	.017	-3.654	-.155
	12	.784	.414	.982	-.620	2.188
	1	-5.483(*)	1.229	.001	-9.654	-1.312
	2	-5.918(*)	1.264	.000	-10.209	-1.628
	3	-6.467(*)	1.234	.000	-10.652	-2.281
	4	-5.186(*)	1.186	.001	-9.210	-1.162
	5	-4.410(*)	1.055	.002	-7.991	-.830
	6	-3.666(*)	.923	.006	-6.798	-.534
	7	-3.488(*)	.902	.009	-6.548	-.428
	8	-3.497(*)	.864	.004	-6.430	-.565
	9	-2.749(*)	.734	.014	-5.241	-.258
	10	-2.689(*)	.640	.002	-4.861	-.516
	11	-.784	.414	.982	-2.188	.620

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc\* year

Measure: MEASURE\_1

US Region of Inc	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	52.088	1.922	48.306	55.869
	2	51.754	2.073	47.676	55.832
	3	52.281	2.024	48.298	56.263
	4	50.912	2.131	46.720	55.104
	5	48.579	2.052	44.541	52.617
	6	46.912	2.088	42.805	51.020
	7	46.246	2.221	41.875	50.616
	8	47.070	2.271	42.603	51.537
	9	45.737	2.314	41.185	50.289

Midwest	10	46.579	2.362	41.931	51.226
	11	44.053	2.484	39.166	48.939
	12	44.211	2.520	39.253	49.168
	1	51.346	2.012	47.387	55.305
	2	53.019	2.170	48.750	57.289
	3	54.500	2.119	50.331	58.669
	4	52.827	2.231	48.438	57.216
	5	53.019	2.149	48.792	57.247
	6	52.635	2.186	48.334	56.935
	7	53.385	2.326	48.809	57.960
	8	53.385	2.377	48.707	58.062
	9	52.827	2.422	48.061	57.593
South	10	52.077	2.473	47.211	56.943
	11	50.615	2.600	45.500	55.731
	12	49.519	2.638	44.329	54.709
	1	52.265	.990	50.318	54.212
	2	52.233	1.067	50.133	54.332
	3	51.870	1.042	49.819	53.920
	4	51.070	1.097	48.911	53.228
	5	50.884	1.057	48.805	52.963
	6	50.702	1.075	48.588	52.817
	7	50.084	1.144	47.834	52.334
	8	49.288	1.169	46.988	51.589
	9	48.935	1.191	46.591	51.279
	10	48.660	1.216	46.267	51.053
	11	46.935	1.279	44.419	49.451
	12	45.521	1.297	42.968	48.073

***General Linear Model of US Region of Inc. for Corporate Governance***

### Between-Subjects Factors

	Value Label	N
US Region of Inc	1 Northeast	57
	2 Midwest	52
	3 South	215

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	24709.408	11	2246.310	16.864	.000	.050	1.000
	Greenhouse-Geisser	24709.408	5.418	4560.440	16.864	.000	.050	1.000
	Huynh-Feldt	24709.408	5.556	4447.017	16.864	.000	.050	1.000
	Lower-bound	24709.408	1.000	24709.408	16.864	.000	.050	.984
year * usreginc	Sphericity Assumed	7592.233	22	345.102	2.591	.000	.016	1.000
	Greenhouse-Geisser	7592.233	10.836	700.622	2.591	.003	.016	.971
	Huynh-Feldt	7592.233	11.113	683.197	2.591	.003	.016	.974
	Lower-bound	7592.233	2.000	3796.117	2.591	.077	.016	.515
Error(year)	Sphericity Assumed	470336.811	3531	133.202				
	Greenhouse-Geisser	470336.811	1739.244	270.426				
	Huynh-Feldt	470336.811	1783.605	263.700				
	Lower-bound	470336.811	321.000	1465.224				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	20454.311	1	20454.311	41.780	.000	.115	1.000
	Quadratic	2546.028	1	2546.028	11.488	.001	.035	.922

year * usreginc	Cubic	255.322	1	255.322	1.658	.199	.005	.250
	Linear	2953.126	2	1476.563	3.016	.050	.018	.582
	Quadratic	2134.810	2	1067.405	4.816	.009	.029	.796
Error(year)	Cubic	43.210	2	21.605	.140	.869	.001	.072
	Linear	157151.292	321	489.568				
	Quadratic	71138.554	321	221.615				
	Cubic	49432.720	321	153.996				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	14784.637	2	7392.318	4.246	.015	.026	.741
Error	558914.899	321	1741.168				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. US Region of Inc

#### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	48.961	1.595	45.822	52.099
Midwest	54.542	1.670	51.255	57.828
South	49.316	.822	47.700	50.932

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-5.581(*)	2.310	.048	-11.126	-.037
	South	-.355	1.795	.996	-4.663	3.952
Midwest	Northeast	5.581(*)	2.310	.048	.037	11.126
	South	5.226(*)	1.862	.016	.758	9.694
South	Northeast	.355	1.795	.996	-3.952	4.663
	Midwest	-5.226(*)	1.862	.016	-9.694	-.758

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1232.053	2	616.027	4.246	.015	.026	.741
Error	46576.242	321	145.097				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound



1	56.990	.398	56.208	57.772
2	56.359	.777	54.829	57.888
3	53.357	.890	51.606	55.109
4	52.350	1.082	50.221	54.480
5	49.945	1.147	47.689	52.201
6	50.861	1.158	48.583	53.139
7	49.691	1.213	47.304	52.077
8	47.580	1.293	45.035	50.125
9	49.764	1.252	47.301	52.226
10	48.670	1.261	46.190	51.150
11	48.354	1.235	45.924	50.783
12	47.353	1.246	44.902	49.803

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.631	.718	1.000	-1.807	3.069
	3	3.633(*)	.883	.003	.637	6.628
	4	4.639(*)	1.114	.003	.859	8.420
	5	7.045(*)	1.177	.000	3.050	11.040
	6	6.129(*)	1.194	.000	2.077	10.181
	7	7.299(*)	1.266	.000	3.004	11.595
	8	9.410(*)	1.344	.000	4.849	13.971
	9	7.226(*)	1.304	.000	2.802	11.651
	10	8.320(*)	1.324	.000	3.826	12.814
	11	8.636(*)	1.310	.000	4.190	13.082
	12	9.637(*)	1.313	.000	5.181	14.093
2	1	-.631	.718	1.000	-3.069	1.807
	3	3.001(*)	.703	.002	.615	5.388

3	4	4.008(*)	.965	.003	.734	7.282
	5	6.414(*)	1.034	.000	2.906	9.921
	6	5.497(*)	1.080	.000	1.832	9.163
	7	6.668(*)	1.172	.000	2.690	10.646
	8	8.778(*)	1.247	.000	4.549	13.008
	9	6.595(*)	1.265	.000	2.304	10.886
	10	7.689(*)	1.309	.000	3.247	12.130
	11	8.005(*)	1.273	.000	3.687	12.323
	12	9.006(*)	1.296	.000	4.609	13.403
	1	-3.633(*)	.883	.003	-6.628	-.637
	2	-3.001(*)	.703	.002	-5.388	-.615
	4	1.007	.898	1.000	-2.040	4.054
4	5	3.412(*)	.965	.030	.136	6.688
	6	2.496	1.083	.768	-1.181	6.172
	7	3.667	1.217	.169	-.464	7.797
	8	5.777(*)	1.255	.000	1.518	10.036
	9	3.594	1.281	.297	-.753	7.940
	10	4.687(*)	1.338	.034	.148	9.227
	11	5.003(*)	1.284	.008	.646	9.361
	12	6.004(*)	1.307	.000	1.570	10.439
	1	-4.639(*)	1.114	.003	-8.420	-.859
	2	-4.008(*)	.965	.003	-7.282	-.734
	3	-1.007	.898	1.000	-4.054	2.040
	5	2.405	.755	.100	-.158	4.968
5	6	1.489	1.061	1.000	-2.112	5.091
	7	2.660	1.134	.730	-1.189	6.509
	8	4.770(*)	1.201	.006	.694	8.847
	9	2.587	1.230	.912	-1.587	6.760
	10	3.680	1.256	.213	-.581	7.942
	11	3.997	1.188	.055	-.034	8.028
	12	4.998(*)	1.195	.002	.943	9.053
	1	-7.045(*)	1.177	.000	-11.040	-3.050
	2	-6.414(*)	1.034	.000	-9.921	-2.906

6	3	-3.412(*)	.965	.030	-6.688	-.136
	4	-2.405	.755	.100	-4.968	.158
	6	-.916	.909	1.000	-4.002	2.170
	7	.254	1.009	1.000	-3.168	3.677
	8	2.365	1.056	.822	-1.219	5.948
	9	.181	1.105	1.000	-3.567	3.930
	10	1.275	1.162	1.000	-2.667	5.217
	11	1.591	1.107	1.000	-2.164	5.347
	12	2.592	1.121	.760	-1.212	6.397
	1	-6.129(*)	1.194	.000	-10.181	-2.077
	2	-5.497(*)	1.080	.000	-9.163	-1.832
	3	-2.496	1.083	.768	-6.172	1.181
7	4	-1.489	1.061	1.000	-5.091	2.112
	5	.916	.909	1.000	-2.170	4.002
	7	1.171	.852	1.000	-1.719	4.060
	8	3.281	1.074	.149	-.363	6.925
	9	1.098	1.123	1.000	-2.712	4.907
	10	2.191	1.170	.985	-1.777	6.160
	11	2.507	1.161	.879	-1.431	6.446
	12	3.509	1.172	.178	-.468	7.485
	1	-7.299(*)	1.266	.000	-11.595	-3.004
	2	-6.668(*)	1.172	.000	-10.646	-2.690
	3	-3.667	1.217	.169	-7.797	.464
	4	-2.660	1.134	.730	-6.509	1.189
8	5	-.254	1.009	1.000	-3.677	3.168
	6	-1.171	.852	1.000	-4.060	1.719
	8	2.110	.916	.767	-.997	5.218
	9	-.073	1.025	1.000	-3.552	3.406
	10	1.021	1.120	1.000	-2.781	4.822
	11	1.337	1.082	1.000	-2.334	5.008
	12	2.338	1.106	.906	-1.414	6.090
	1	-9.410(*)	1.344	.000	-13.971	-4.849
	2	-8.778(*)	1.247	.000	-13.008	-4.549

9	3	-5.777(*)	1.255	.000	-10.036	-1.518
	4	-4.770(*)	1.201	.006	-8.847	-.694
	5	-2.365	1.056	.822	-5.948	1.219
	6	-3.281	1.074	.149	-6.925	.363
	7	-2.110	.916	.767	-5.218	.997
	9	-2.183	.821	.419	-4.969	.602
	10	-1.090	1.053	1.000	-4.664	2.485
	11	-.774	1.057	1.000	-4.359	2.812
	12	.227	1.087	1.000	-3.462	3.917
	1	-7.226(*)	1.304	.000	-11.651	-2.802
	2	-6.595(*)	1.265	.000	-10.886	-2.304
	3	-3.594	1.281	.297	-7.940	.753
10	4	-2.587	1.230	.912	-6.760	1.587
	5	-.181	1.105	1.000	-3.930	3.567
	6	-1.098	1.123	1.000	-4.907	2.712
	7	.073	1.025	1.000	-3.406	3.552
	8	2.183	.821	.419	-.602	4.969
	10	1.094	.895	1.000	-1.942	4.130
	11	1.410	.977	1.000	-1.904	4.724
	12	2.411	1.034	.743	-1.099	5.921
	1	-8.320(*)	1.324	.000	-12.814	-3.826
	2	-7.689(*)	1.309	.000	-12.130	-3.247
	3	-4.687(*)	1.338	.034	-9.227	-.148
	4	-3.680	1.256	.213	-7.942	.581
11	5	-1.275	1.162	1.000	-5.217	2.667
	6	-2.191	1.170	.985	-6.160	1.777
	7	-1.021	1.120	1.000	-4.822	2.781
	8	1.090	1.053	1.000	-2.485	4.664
	9	-1.094	.895	1.000	-4.130	1.942
	11	.316	.686	1.000	-2.013	2.646
	12	1.317	.783	.998	-1.341	3.975
	1	-8.636(*)	1.310	.000	-13.082	-4.190
	2	-8.005(*)	1.273	.000	-12.323	-3.687

12	3	-5.003(*)	1.284	.008	-9.361	-.646
	4	-3.997	1.188	.055	-8.028	.034
	5	-1.591	1.107	1.000	-5.347	2.164
	6	-2.507	1.161	.879	-6.446	1.431
	7	-1.337	1.082	1.000	-5.008	2.334
	8	.774	1.057	1.000	-2.812	4.359
	9	-1.410	.977	1.000	-4.724	1.904
	10	-.316	.686	1.000	-2.646	2.013
	12	1.001	.450	.835	-.527	2.529
	1	-9.637(*)	1.313	.000	-14.093	-5.181
	2	-9.006(*)	1.296	.000	-13.403	-4.609
	3	-6.004(*)	1.307	.000	-10.439	-1.570
	4	-4.998(*)	1.195	.002	-9.053	-.943
	5	-2.592	1.121	.760	-6.397	1.212
	6	-3.509	1.172	.178	-7.485	.468
	7	-2.338	1.106	.906	-6.090	1.414
	8	-.227	1.087	1.000	-3.917	3.462
	9	-2.411	1.034	.743	-5.921	1.099
	10	-1.317	.783	.998	-3.975	1.341
	11	-1.001	.450	.835	-2.529	.527

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. US Region of Inc\* year

Measure: MEASURE\_1

US Region of Inc	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Northeast	1	56.316	.776	54.789	57.843
	2	55.632	1.517	52.646	58.617
	3	49.474	1.738	46.054	52.893
	4	50.158	2.113	46.001	54.315

Midwest	5	47.421	2.238	43.017	51.825
	6	48.561	2.261	44.114	53.009
	7	44.912	2.368	40.253	49.571
	8	43.544	2.525	38.576	48.512
	9	49.018	2.444	44.210	53.825
	10	47.421	2.461	42.579	52.263
	11	48.105	2.411	43.363	52.848
	12	46.965	2.432	42.180	51.749
	1	58.500	.813	56.901	60.099
	2	58.500	1.589	55.374	61.626
	3	56.500	1.820	52.920	60.080
	4	56.000	2.212	51.647	60.353
South	5	54.000	2.344	49.389	58.611
	6	53.250	2.367	48.593	57.907
	7	53.750	2.479	48.872	58.628
	8	51.750	2.644	46.549	56.951
	9	53.250	2.559	48.216	58.284
	10	53.500	2.577	48.431	58.569
	11	53.500	2.524	48.535	58.465
	12	52.000	2.546	46.991	57.009
	1	56.153	.400	55.367	56.940
	2	54.944	.781	53.407	56.481
	3	54.098	.895	52.337	55.858
	4	50.893	1.088	48.752	53.034
	5	48.414	1.153	46.146	50.682
	6	50.772	1.164	48.482	53.062
	7	50.409	1.219	48.010	52.808
	8	47.447	1.300	44.889	50.004
	9	47.023	1.258	44.548	49.499
	10	45.088	1.267	42.595	47.581
	11	43.456	1.241	41.014	45.898
	12	43.093	1.252	40.630	45.557

## General Linear Model of US Region of Inc with Total CSR

### Between-Subjects Factors

	Value Label	N
US Region of Inc	1 Northeast	57
	2 Midwest	52
	3 South	215

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	14528.130	11	1320.739	2.148	.015	.007	.933
	Greenhouse-Geisser	14528.130	4.702	3090.094	2.148	.062	.007	.692
	Huynh-Feldt	14528.130	4.810	3020.608	2.148	.060	.007	.699
	Lower-bound	14528.130	1.000	14528.130	2.148	.144	.007	.309
year * usreginc	Sphericity Assumed	22747.726	22	1033.988	1.681	.024	.010	.978
	Greenhouse-Geisser	22747.726	9.403	2419.190	1.681	.085	.010	.795
	Huynh-Feldt	22747.726	9.619	2364.790	1.681	.083	.010	.802
	Lower-bound	22747.726	2.000	11373.863	1.681	.188	.010	.353
Error(year)	Sphericity Assumed	2171322.009	3531	614.931				
	Greenhouse-Geisser	2171322.009	1509.187	1438.736				
	Huynh-Feldt	2171322.009	1543.904	1406.384				
	Lower-bound	2171322.009	321.000	6764.243				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6100.893	1	6100.893	2.496	.115	.008	.350
	Quadratic	6002.177	1	6002.177	4.807	.029	.015	.589
	Cubic	318.625	1	318.625	.462	.497	.001	.104
year * usreginc	Linear	11505.050	2	5752.525	2.354	.097	.014	.475
	Quadratic	6638.965	2	3319.482	2.658	.072	.016	.526
	Cubic	311.331	2	155.666	.226	.798	.001	.085
Error(year)	Linear	784550.488	321	2444.083				
	Quadratic	400840.463	321	1248.724				
	Cubic	221361.531	321	689.600				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
usreginc	200240.448	2	100120.224	5.294	.005	.032	.834
Error	6071042.672	321	18912.906				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1



year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	303.801	2.615	298.655	308.946
2	306.599	2.811	301.068	312.129
3	306.791	3.045	300.800	312.782
4	305.620	3.178	299.369	311.871
5	305.445	3.134	299.280	311.611
6	305.283	3.099	299.186	311.381
7	306.899	3.283	300.441	313.358
8	305.102	3.359	298.494	311.709
9	305.009	3.284	298.547	311.471
10	304.621	3.214	298.298	310.944
11	300.457	3.278	294.007	306.907
12	298.910	3.275	292.466	305.354

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.798	1.532	.991	-7.999	2.402
	3	-2.991	1.866	1.000	-9.323	3.342
	4	-1.820	2.343	1.000	-9.771	6.132
	5	-1.645	2.511	1.000	-10.165	6.875
	6	-1.483	2.667	1.000	-10.532	7.566
	7	-3.099	2.799	1.000	-12.595	6.398

2	8	-1.301	2.898	1.000	-11.137	8.534
	9	-1.208	2.799	1.000	-10.708	8.291
	10	-.820	2.778	1.000	-10.246	8.605
	11	3.344	2.958	1.000	-6.694	13.382
	12	4.891	2.994	.999	-5.270	15.051
	1	2.798	1.532	.991	-2.402	7.999
	3	-.192	1.417	1.000	-5.002	4.617
	4	.979	2.059	1.000	-6.008	7.965
	5	1.154	2.337	1.000	-6.776	9.083
	6	1.316	2.552	1.000	-7.343	9.974
	7	-.300	2.697	1.000	-9.452	8.852
	8	1.497	2.719	1.000	-7.728	10.722
3	9	1.590	2.730	1.000	-7.672	10.852
	10	1.978	2.675	1.000	-7.098	11.054
	11	6.142	2.819	.867	-3.425	15.709
	12	7.689	2.874	.406	-2.064	17.442
	1	2.991	1.866	1.000	-3.342	9.323
	2	.192	1.417	1.000	-4.617	5.002
	4	1.171	1.905	1.000	-5.295	7.637
	5	1.346	2.357	1.000	-6.653	9.345
	6	1.508	2.541	1.000	-7.115	10.131
	7	-.108	2.734	1.000	-9.384	9.168
	8	1.689	2.731	1.000	-7.578	10.957
	9	1.782	2.740	1.000	-7.516	11.081
4	10	2.170	2.729	1.000	-7.089	11.430
	11	6.334	2.832	.824	-3.274	15.943
	12	7.881	2.855	.333	-1.808	17.570
	1	1.820	2.343	1.000	-6.132	9.771
	2	-.979	2.059	1.000	-7.965	6.008
	3	-1.171	1.905	1.000	-7.637	5.295
	5	.175	1.627	1.000	-5.345	5.694
	6	.337	2.185	1.000	-7.076	7.750
	7	-1.279	2.348	1.000	-9.248	6.690

5	8	.518	2.439	1.000	-7.759	8.796
	9	.611	2.533	1.000	-7.983	9.206
	10	.999	2.601	1.000	-7.826	9.824
	11	5.163	2.738	.983	-4.127	14.453
	12	6.710	2.681	.573	-2.388	15.809
	1	1.645	2.511	1.000	-6.875	10.165
	2	-1.154	2.337	1.000	-9.083	6.776
	3	-1.346	2.357	1.000	-9.345	6.653
	4	-.175	1.627	1.000	-5.694	5.345
	6	.162	1.814	1.000	-5.993	6.317
	7	-1.454	2.112	1.000	-8.620	5.713
	8	.344	2.364	1.000	-7.679	8.366
6	9	.437	2.422	1.000	-7.783	8.656
	10	.825	2.535	1.000	-7.776	9.425
	11	4.989	2.710	.989	-4.206	14.183
	12	6.536	2.668	.627	-2.518	15.589
	1	1.483	2.667	1.000	-7.566	10.532
	2	-1.316	2.552	1.000	-9.974	7.343
	3	-1.508	2.541	1.000	-10.131	7.115
	4	-.337	2.185	1.000	-7.750	7.076
	5	-.162	1.814	1.000	-6.317	5.993
	7	-1.616	1.500	1.000	-6.705	3.473
	8	.182	1.977	1.000	-6.526	6.889
	9	.274	2.119	1.000	-6.915	7.463
7	10	.662	2.364	1.000	-7.358	8.683
	11	4.827	2.599	.987	-3.993	13.646
	12	6.373	2.583	.609	-2.391	15.137
	1	3.099	2.799	1.000	-6.398	12.595
	2	.300	2.697	1.000	-8.852	9.452
	3	.108	2.734	1.000	-9.168	9.384
	4	1.279	2.348	1.000	-6.690	9.248
	5	1.454	2.112	1.000	-5.713	8.620
	6	1.616	1.500	1.000	-3.473	6.705

8	8	1.797	1.709	1.000	-4.003	7.598
	9	1.890	1.928	1.000	-4.651	8.432
	10	2.278	2.220	1.000	-5.256	9.813
	11	6.443	2.560	.560	-2.246	15.131
	12	7.989	2.553	.119	-.673	16.652
	1	1.301	2.898	1.000	-8.534	11.137
	2	-1.497	2.719	1.000	-10.722	7.728
	3	-1.689	2.731	1.000	-10.957	7.578
	4	-.518	2.439	1.000	-8.796	7.759
	5	-.344	2.364	1.000	-8.366	7.679
	6	-.182	1.977	1.000	-6.889	6.526
	7	-1.797	1.709	1.000	-7.598	4.003
9	9	.093	1.377	1.000	-4.579	4.764
	10	.481	1.926	1.000	-6.056	7.017
	11	4.645	2.196	.906	-2.808	12.098
	12	6.192	2.327	.418	-1.704	14.087
	1	1.208	2.799	1.000	-8.291	10.708
	2	-1.590	2.730	1.000	-10.852	7.672
	3	-1.782	2.740	1.000	-11.081	7.516
	4	-.611	2.533	1.000	-9.206	7.983
	5	-.437	2.422	1.000	-8.656	7.783
	6	-.274	2.119	1.000	-7.463	6.915
	7	-1.890	1.928	1.000	-8.432	4.651
	8	-.093	1.377	1.000	-4.764	4.579
10	10	.388	1.622	1.000	-5.115	5.891
	11	4.552	1.960	.751	-2.099	11.203
	12	6.099	2.127	.253	-1.118	13.316
	1	.820	2.778	1.000	-8.605	10.246
	2	-1.978	2.675	1.000	-11.054	7.098
	3	-2.170	2.729	1.000	-11.430	7.089
	4	-.999	2.601	1.000	-9.824	7.826
	5	-.825	2.535	1.000	-9.425	7.776
	6	-.662	2.364	1.000	-8.683	7.358

11	7	-2.278	2.220	1.000	-9.813	5.256
	8	-.481	1.926	1.000	-7.017	6.056
	9	-.388	1.622	1.000	-5.891	5.115
	11	4.164	1.376	.162	-.506	8.834
	12	5.711(*)	1.657	.041	.090	11.332
	1	-3.344	2.958	1.000	-13.382	6.694
	2	-6.142	2.819	.867	-15.709	3.425
	3	-6.334	2.832	.824	-15.943	3.274
	4	-5.163	2.738	.983	-14.453	4.127
	5	-4.989	2.710	.989	-14.183	4.206
	6	-4.827	2.599	.987	-13.646	3.993
12	7	-6.443	2.560	.560	-15.131	2.246
	8	-4.645	2.196	.906	-12.098	2.808
	9	-4.552	1.960	.751	-11.203	2.099
	10	-4.164	1.376	.162	-8.834	.506
	12	1.547	1.172	1.000	-2.430	5.524
	1	-4.891	2.994	.999	-15.051	5.270
	2	-7.689	2.874	.406	-17.442	2.064
	3	-7.881	2.855	.333	-17.570	1.808
	4	-6.710	2.681	.573	-15.809	2.388
	5	-6.536	2.668	.627	-15.589	2.518
	6	-6.373	2.583	.609	-15.137	2.391
	7	-7.989	2.553	.119	-16.652	.673
	8	-6.192	2.327	.418	-14.087	1.704
	9	-6.099	2.127	.253	-13.316	1.118
	10	-5.711(*)	1.657	.041	-11.332	-.090
	11	-1.547	1.172	1.000	-5.524	2.430

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. US Region of Inc

### Estimates

Measure: MEASURE\_1

US Region of Inc	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Northeast	302.789	5.258	292.444	313.135
Midwest	315.244	5.505	304.412	326.075
South	295.601	2.708	290.274	300.928

### Pairwise Comparisons

Measure: MEASURE\_1

(I) US Region of Inc	(J) US Region of Inc	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Northeast	Midwest	-12.454	7.613	.278	-30.728	5.819
	South	7.188	5.914	.535	-7.008	21.385
Midwest	Northeast	12.454	7.613	.278	-5.819	30.728
	South	19.642(*)	6.135	.005	4.917	34.368
South	Northeast	-7.188	5.914	.535	-21.385	7.008
	Midwest	-19.642(*)	6.135	.005	-34.368	-4.917

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	16686.704	2	8343.352	5.294	.005	.032	.834
Error	505920.223	321	1576.075				

The F tests the effect of US Region of Inc. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. US Region of Inc\* year

Measure: MEASURE\_1

US Region of Inc	year	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Northeast	1	308.860	5.106	298.814	318.905
	2	310.526	5.488	299.729	321.324
	3	306.526	5.945	294.830	318.222
	4	303.246	6.204	291.041	315.450
	5	302.246	6.118	290.209	314.283
	6	302.596	6.051	290.693	314.500
	7	301.158	6.409	288.549	313.767
	8	299.526	6.557	286.627	312.426
	9	301.895	6.412	289.279	314.510
	10	301.053	6.275	288.707	313.398
	11	298.965	6.401	286.372	311.557
	12	296.877	6.395	284.297	309.458
Midwest	1	306.500	5.346	295.983	317.017
	2	311.596	5.746	300.292	322.901
	3	315.019	6.224	302.774	327.265
	4	316.731	6.495	303.953	329.509
	5	317.500	6.406	304.898	330.102
	6	314.212	6.335	301.749	326.674
	7	318.154	6.710	304.953	331.355
	8	319.212	6.865	305.706	332.717
	9	316.481	6.713	303.273	329.689
	10	319.596	6.570	306.671	332.521
	11	315.308	6.701	302.124	328.492
	12	312.615	6.695	299.444	325.787
South	1	296.042	2.629	290.870	301.214
	2	297.674	2.826	292.115	303.234

3	298.828	3.061	292.806	304.850
4	296.884	3.194	290.600	303.168
5	296.591	3.150	290.393	302.788
6	299.042	3.115	292.913	305.171
7	301.386	3.300	294.894	307.878
8	296.567	3.376	289.925	303.209
9	296.651	3.302	290.156	303.147
10	293.214	3.231	286.857	299.570
11	287.098	3.296	280.614	293.581
12	287.237	3.293	280.760	293.715



## APPENDIX E

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with PSIC

#### *General Linear Model of PSIC for Community Relations*

##### Between-Subjects Factors

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	14337.555	11	1303.414	12.847	.000	.037	1.000
	Greenhouse-Geisser	14337.555	4.080	3514.211	12.847	.000	.037	1.000
	Huynh-Feldt	14337.555	4.174	3434.951	12.847	.000	.037	1.000
	Lower-bound	14337.555	1.000	14337.555	12.847	.000	.037	.947

year * psic	Sphericity Assumed	3591.303	33	108.827	1.073	.357	.010	.938
	Greenhouse-Geisser	3591.303	12.240	293.416	1.073	.379	.010	.642
	Huynh-Feldt	3591.303	12.522	286.798	1.073	.379	.010	.650
	Lower-bound	3591.303	3.000	1197.101	1.073	.361	.010	.290
	Sphericity Assumed	371636.377	3663	101.457				
	Greenhouse-Geisser	371636.377	1358.600	273.544				
	Huynh-Feldt	371636.377	1389.949	267.374				
	Lower-bound	371636.377	333.000	1116.025				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	11633.882	1	11633.882	25.898	.000	.072	.999
	Quadratic	669.374	1	669.374	4.055	.045	.012	.519
	Cubic	1129.254	1	1129.254	10.718	.001	.031	.904
year * psic	Linear	670.982	3	223.661	.498	.684	.004	.151
	Quadratic	460.992	3	153.664	.931	.426	.008	.255
	Cubic	55.795	3	18.598	.177	.912	.002	.083
Error(year)	Linear	149589.326	333	449.217				
	Quadratic	54971.473	333	165.079				
	Cubic	35083.770	333	105.357				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	21073.200	3	7024.400	3.126	.026	.027	.725
Error	748308.467	333	2247.173				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC

#### Estimates

Measure: MEASURE\_1

PSIC Categories	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	48.559	.998	46.596	50.523
Services - Financial, Business, Personal	54.992	1.935	51.185	58.799
Transportation & Utilities	50.602	1.955	46.756	54.448
Whole and Retail Trade	48.477	1.935	44.670	52.284

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	-6.432(*)	2.177	.020	-12.196	-.669
	Transportation & Utilities	-2.043	2.195	.926	-7.852	3.767
	Whole and Retail Trade	.083	2.177	1.000	-5.681	5.846

Services - Financial, Business, Personal	Manufacturing	6.432(*)	2.177	.020	.669	12.196
	Transportation & Utilities	4.390	2.751	.508	-2.891	11.670
	Whole and Retail Trade	6.515	2.737	.102	-.729	13.759
Transportation & Utilities	Manufacturing	2.043	2.195	.926	-3.767	7.852
	Services - Financial, Business, Personal	-4.390	2.751	.508	-11.670	2.891
	Whole and Retail Trade	2.125	2.751	.969	-5.155	9.406
Whole and Retail Trade	Manufacturing	-.083	2.177	1.000	-5.846	5.681
	Services - Financial, Business, Personal	-6.515	2.737	.102	-13.759	.729
	Transportation & Utilities	-2.125	2.751	.969	-9.406	5.155

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1756.100	3	585.367	3.126	.026	.027	.725
Error	62359.039	333	187.264				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.977	1.073	49.866	54.087
2	52.965	1.139	50.725	55.206

3	54.024	1.265	51.537	56.512
4	52.281	1.132	50.054	54.508
5	52.212	1.129	49.992	54.432
6	51.303	1.035	49.267	53.339
7	51.563	1.073	49.452	53.674
8	50.171	1.029	48.148	52.195
9	48.950	1.043	46.898	51.003
10	47.279	.950	45.411	49.147
11	46.983	.943	45.128	48.837
12	48.180	1.026	46.163	50.198

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.988	.560	.996	-2.889	.912
	3	-2.048	.799	.512	-4.757	.662
	4	-.304	.915	1.000	-3.409	2.801
	5	-.235	1.024	1.000	-3.709	3.238
	6	.674	1.043	1.000	-2.864	4.211
	7	.414	1.047	1.000	-3.136	3.964
	8	1.806	1.043	.997	-1.731	5.342
	9	3.026	1.042	.228	-.507	6.560
	10	4.698(*)	1.071	.001	1.066	8.329
	11	4.994(*)	1.085	.000	1.312	8.676
	12	3.797	1.121	.051	-.005	7.598
	2					
2	1	.988	.560	.996	-.912	2.889
	3	-1.059	.596	.995	-3.080	.962
	4	.684	.843	1.000	-2.175	3.543
	5	.753	.978	1.000	-2.564	4.070

3	6	1.662	1.045	1.000	-1.882	5.206
	7	1.402	1.067	1.000	-2.217	5.021
	8	2.794	1.056	.433	-.790	6.378
	9	4.015(*)	1.068	.013	.392	7.638
	10	5.686(*)	1.098	.000	1.961	9.411
	11	5.982(*)	1.123	.000	2.174	9.791
	12	4.785(*)	1.155	.003	.868	8.702
	1	2.048	.799	.512	-.662	4.757
	2	1.059	.596	.995	-.962	3.080
	4	1.743	.754	.760	-.814	4.301
	5	1.812	.965	.985	-1.461	5.086
	6	2.721	1.059	.505	-.871	6.313
4	7	2.461	1.089	.806	-1.235	6.157
	8	3.853(*)	1.089	.030	.157	7.549
	9	5.074(*)	1.111	.000	1.306	8.842
	10	6.745(*)	1.151	.000	2.841	10.650
	11	7.042(*)	1.188	.000	3.012	11.072
	12	5.844(*)	1.232	.000	1.666	10.022
	1	.304	.915	1.000	-2.801	3.409
	2	-.684	.843	1.000	-3.543	2.175
	3	-1.743	.754	.760	-4.301	.814
	5	.069	.685	1.000	-2.255	2.393
	6	.978	.876	1.000	-1.995	3.950
	7	.718	.927	1.000	-2.427	3.863
5	8	2.110	.966	.863	-1.167	5.386
	9	3.331(*)	.975	.046	.024	6.637
	10	5.002(*)	1.004	.000	1.596	8.408
	11	5.298(*)	1.045	.000	1.754	8.842
	12	4.101(*)	1.093	.014	.392	7.810
	1	.235	1.024	1.000	-3.238	3.709
	2	-.753	.978	1.000	-4.070	2.564
	3	-1.812	.965	.985	-5.086	1.461
	4	-.069	.685	1.000	-2.393	2.255

6	6	.909	.700	1.000	-1.465	3.282
	7	.649	.834	1.000	-2.182	3.480
	8	2.041	.899	.797	-1.009	5.091
	9	3.262	.968	.054	-.022	6.545
	10	4.933(*)	.980	.000	1.610	8.257
	11	5.229(*)	.993	.000	1.861	8.598
	12	4.032(*)	1.032	.007	.532	7.532
	1	-.674	1.043	1.000	-4.211	2.864
	2	-1.662	1.045	1.000	-5.206	1.882
	3	-2.721	1.059	.505	-6.313	.871
	4	-.978	.876	1.000	-3.950	1.995
	5	-.909	.700	1.000	-3.282	1.465
7	7	-.260	.612	1.000	-2.335	1.815
	8	1.132	.742	1.000	-1.386	3.650
	9	2.353	.842	.305	-.503	5.209
	10	4.024(*)	.908	.001	.946	7.103
	11	4.321(*)	.913	.000	1.223	7.418
	12	3.123(*)	.910	.044	.036	6.210
	1	-.414	1.047	1.000	-3.964	3.136
	2	-1.402	1.067	1.000	-5.021	2.217
	3	-2.461	1.089	.806	-6.157	1.235
	4	-.718	.927	1.000	-3.863	2.427
	5	-.649	.834	1.000	-3.480	2.182
	6	.260	.612	1.000	-1.815	2.335
8	8	1.392	.627	.838	-.736	3.520
	9	2.613(*)	.738	.029	.111	5.115
	10	4.284(*)	.817	.000	1.513	7.055
	11	4.581(*)	.837	.000	1.741	7.420
	12	3.383(*)	.811	.003	.631	6.135
	1	-1.806	1.043	.997	-5.342	1.731
	2	-2.794	1.056	.433	-6.378	.790
	3	-3.853(*)	1.089	.030	-7.549	-.157
	4	-2.110	.966	.863	-5.386	1.167

9	5	-2.041	.899	.797	-5.091	1.009
	6	-1.132	.742	1.000	-3.650	1.386
	7	-1.392	.627	.838	-3.520	.736
	9	1.221	.436	.301	-.258	2.700
	10	2.892(*)	.623	.000	.780	5.004
	11	3.189(*)	.641	.000	1.016	5.362
	12	1.991	.664	.176	-.262	4.244
	1	-3.026	1.042	.228	-6.560	.507
	2	-4.015(*)	1.068	.013	-7.638	-.392
	3	-5.074(*)	1.111	.000	-8.842	-1.306
	4	-3.331(*)	.975	.046	-6.637	-.024
	5	-3.262	.968	.054	-6.545	.022
10	6	-2.353	.842	.305	-5.209	.503
	7	-2.613(*)	.738	.029	-5.115	-.111
	8	-1.221	.436	.301	-2.700	.258
	10	1.671	.523	.096	-.103	3.446
	11	1.968	.612	.090	-.108	4.043
	12	.770	.646	1.000	-1.422	2.962
	1	-4.698(*)	1.071	.001	-8.329	-1.066
	2	-5.686(*)	1.098	.000	-9.411	-1.961
	3	-6.745(*)	1.151	.000	-10.650	-2.841
	4	-5.002(*)	1.004	.000	-8.408	-1.596
	5	-4.933(*)	.980	.000	-8.257	-1.610
	6	-4.024(*)	.908	.001	-7.103	-.946
11	7	-4.284(*)	.817	.000	-7.055	-1.513
	8	-2.892(*)	.623	.000	-5.004	-.780
	9	-1.671	.523	.096	-3.446	.103
	11	.296	.376	1.000	-.980	1.573
	12	-.901	.582	1.000	-2.874	1.072
	1	-4.994(*)	1.085	.000	-8.676	-1.312
	2	-5.982(*)	1.123	.000	-9.791	-2.174
	3	-7.042(*)	1.188	.000	-11.072	-3.012
	4	-5.298(*)	1.045	.000	-8.842	-1.754



12	5	-5.229(*)	.993	.000	-8.598	-1.861
	6	-4.321(*)	.913	.000	-7.418	-1.223
	7	-4.581(*)	.837	.000	-7.420	-1.741
	8	-3.189(*)	.641	.000	-5.362	-1.016
	9	-1.968	.612	.090	-4.043	.108
	10	-.296	.376	1.000	-1.573	.980
	12	-1.198	.423	.276	-2.631	.236
	1	-3.797	1.121	.051	-7.598	.005
	2	-4.785(*)	1.155	.003	-8.702	-.868
	3	-5.844(*)	1.232	.000	-10.022	-1.666
	4	-4.101(*)	1.093	.014	-7.810	-.392
	5	-4.032(*)	1.032	.007	-7.532	-.532
	6	-3.123(*)	.910	.044	-6.210	-.036
	7	-3.383(*)	.811	.003	-6.135	-.631
	8	-1.991	.664	.176	-4.244	.262
	9	-.770	.646	1.000	-2.962	1.422
	10	.901	.582	1.000	-1.072	2.874
	11	1.198	.423	.276	-.236	2.631

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	49.963	1.221	47.561	52.365
	2	51.739	1.296	49.190	54.289
	3	52.931	1.439	50.100	55.762
	4	50.681	1.288	48.146	53.215
	5	50.005	1.284	47.479	52.531
	6	48.532	1.178	46.215	50.849

Services - Financial, Business, Personal	7	48.681	1.221	46.279	51.083
	8	46.644	1.170	44.341	48.946
	9	46.755	1.187	44.420	49.091
	10	46.048	1.081	43.922	48.174
	11	45.346	1.073	43.235	47.456
	12	45.388	1.167	43.092	47.684
	1	55.700	2.368	51.043	60.357
	2	54.420	2.513	49.477	59.363
	3	58.740	2.790	53.251	64.229
	4	57.660	2.498	52.746	62.574
	5	54.960	2.490	50.062	59.858
	6	54.060	2.284	49.567	58.553
Transportation & Utilities	7	55.340	2.368	50.682	59.998
	8	55.540	2.269	51.076	60.004
	9	55.360	2.302	50.831	59.889
	10	52.460	2.095	48.338	56.582
	11	52.460	2.080	48.368	56.552
	12	53.200	2.263	48.748	57.652
	1	53.224	2.392	48.520	57.929
	2	55.061	2.539	50.068	60.055
	3	54.327	2.819	48.782	59.871
	4	50.143	2.524	45.179	55.107
	5	52.163	2.515	47.215	57.111
	6	53.061	2.307	48.523	57.600
Whole and Retail Trade	7	51.592	2.392	46.887	56.297
	8	49.082	2.292	44.572	53.591
	9	47.306	2.326	42.731	51.881
	10	46.388	2.117	42.224	50.551
	11	46.245	2.101	42.111	50.379
	12	48.633	2.286	44.135	53.130
Whole and Retail Trade	1	49.020	2.368	44.363	53.677
	2	50.640	2.513	45.697	55.583

3	50.100	2.790	44.611	55.589
4	50.640	2.498	45.726	55.554
5	51.720	2.490	46.822	56.618
6	49.560	2.284	45.067	54.053
7	50.640	2.368	45.982	55.298
8	49.420	2.269	44.956	53.884
9	46.380	2.302	41.851	50.909
10	44.220	2.095	40.098	48.342
11	43.880	2.080	39.788	47.972
12	45.500	2.263	41.048	49.952

### ***General Linear Model of PSIC for Diversity***

#### **Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	38359.653	11	3487.241	41.087	.000	.110	1.000
	Greenhouse-Geisser	38359.653	4.201	9131.099	41.087	.000	.110	1.000
	Huynh-Feldt	38359.653	4.300	8921.494	41.087	.000	.110	1.000
	Lower-bound	38359.653	1.000	38359.653	41.087	.000	.110	1.000
year * psic	Sphericity Assumed	2778.625	33	84.201	.992	.480	.009	.912
	Greenhouse-Geisser	2778.625	12.603	220.474	.992	.456	.009	.609
	Huynh-Feldt	2778.625	12.899	215.413	.992	.456	.009	.616
	Lower-bound	2778.625	3.000	926.208	.992	.397	.009	.270
Error(year)	Sphericity Assumed	310896.332	3663	84.875				
	Greenhouse-Geisser	310896.332	1398.930	222.239				
	Huynh-Feldt	310896.332	1431.797	217.137				
	Lower-bound	310896.332	333.000	933.623				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	36560.067	1	36560.067	99.183	.000	.229	1.000
	Quadratic	1377.877	1	1377.877	8.353	.004	.024	.822
	Cubic	33.627	1	33.627	.456	.500	.001	.103
year * psic	Linear	765.427	3	255.142	.692	.557	.006	.196
	Quadratic	711.335	3	237.112	1.437	.232	.013	.380
	Cubic	90.127	3	30.042	.407	.748	.004	.131
Error(year)	Linear	122748.031	333	368.613				
	Quadratic	54932.767	333	164.963				
	Cubic	24556.219	333	73.742				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	363.114	3	121.038	.055	.983	.000	.060
Error	736401.941	333	2211.417				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC Categories	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	50.220	.990	48.272	52.167
Services - Financial, Business, Personal	49.538	1.920	45.762	53.315
Transportation & Utilities	50.592	1.939	46.777	54.407
Whole and Retail Trade	50.002	1.920	46.225	53.778

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial,	.682	2.160	1.000	-5.036	6.399

Services - Financial, Business, Personal	Business, Personal Transportation & Utilities	-.372	2.177	1.000	-6.135	5.391
	Whole and Retail Trade	.218	2.160	1.000	-5.499	5.935
	Manufacturing	-.682	2.160	1.000	-6.399	5.036
	Transportation & Utilities	-1.054	2.729	.999	-8.276	6.169
	Whole and Retail Trade	-.463	2.715	1.000	-7.649	6.723
	Manufacturing	.372	2.177	1.000	-5.391	6.135
	Services - Financial, Business, Personal	1.054	2.729	.999	-6.169	8.276
	Whole and Retail Trade	.590	2.729	1.000	-6.632	7.813
	Manufacturing	-.218	2.160	1.000	-5.935	5.499
	Services - Financial, Business, Personal Transportation & Utilities	.463	2.715	1.000	-6.723	7.649
		-.590	2.729	1.000	-7.813	6.632

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	30.259	3	10.086	.055	.983	.000	.060
Error	61366.828	333	184.285				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	43.635	.596	42.463	44.807
2	44.602	.680	43.264	45.940
3	45.951	.778	44.421	47.480
4	48.317	.964	46.420	50.214
5	49.579	.982	47.648	51.511
6	49.914	1.064	47.821	52.007
7	51.294	1.101	49.129	53.459
8	52.355	1.140	50.112	54.597
9	52.679	1.192	50.333	55.024
10	54.043	1.218	51.648	56.439
11	54.605	1.257	52.132	57.079
12	54.081	1.214	51.693	56.469

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.967	.286	.052	-1.938	.003
	3	-2.316(*)	.440	.000	-3.809	-.822
	4	-4.682(*)	.704	.000	-7.071	-2.293
	5	-5.944(*)	.737	.000	-8.445	-3.444
	6	-6.279(*)	.885	.000	-9.280	-3.278
	7	-7.659(*)	.936	.000	-10.836	-4.483

2	8	-8.720(*)	.969	.000	-12.007	-5.432
	9	-9.044(*)	1.038	.000	-12.566	-5.521
	10	-10.408(*)	1.047	.000	-13.961	-6.856
	11	-10.970(*)	1.067	.000	-14.590	-7.350
	12	-10.446(*)	1.033	.000	-13.950	-6.942
	1	.967	.286	.052	-.003	1.938
	3	-1.349(*)	.345	.007	-2.520	-.177
	4	-3.715(*)	.650	.000	-5.920	-1.510
	5	-4.977(*)	.688	.000	-7.310	-2.644
	6	-5.312(*)	.818	.000	-8.086	-2.537
	7	-6.692(*)	.863	.000	-9.621	-3.764
	8	-7.753(*)	.891	.000	-10.777	-4.729
3	9	-8.077(*)	.973	.000	-11.378	-4.776
	10	-9.441(*)	.985	.000	-12.781	-6.101
	11	-10.003(*)	1.003	.000	-13.406	-6.600
	12	-9.479(*)	.974	.000	-12.783	-6.175
	1	2.316(*)	.440	.000	.822	3.809
	2	1.349(*)	.345	.007	.177	2.520
	4	-2.367(*)	.588	.005	-4.360	-.374
	5	-3.629(*)	.672	.000	-5.908	-1.350
	6	-3.963(*)	.817	.000	-6.734	-1.193
	7	-5.344(*)	.868	.000	-8.289	-2.398
	8	-6.404(*)	.869	.000	-9.354	-3.455
	9	-6.728(*)	.954	.000	-9.964	-3.492
4	10	-8.093(*)	.966	.000	-11.370	-4.815
	11	-8.655(*)	.970	.000	-11.946	-5.363
	12	-8.131(*)	.955	.000	-11.371	-4.890
	1	4.682(*)	.704	.000	2.293	7.071
	2	3.715(*)	.650	.000	1.510	5.920
	3	2.367(*)	.588	.005	.374	4.360
	5	-1.262	.532	.702	-3.066	.542
	6	-1.597	.734	.869	-4.087	.893
	7	-2.977(*)	.850	.034	-5.859	-.095



5	8	-4.038(*)	.841	.000	-6.892	-1.183
	9	-4.362(*)	.935	.000	-7.533	-1.190
	10	-5.726(*)	.989	.000	-9.081	-2.372
	11	-6.288(*)	1.011	.000	-9.716	-2.860
	12	-5.764(*)	.987	.000	-9.113	-2.415
	1	5.944(*)	.737	.000	3.444	8.445
	2	4.977(*)	.688	.000	2.644	7.310
	3	3.629(*)	.672	.000	1.350	5.908
	4	1.262	.532	.702	-.542	3.066
	6	-.335	.592	1.000	-2.342	1.673
	7	-1.715	.736	.744	-4.213	.783
	8	-2.775(*)	.769	.023	-5.384	-.166
6	9	-3.099(*)	.854	.021	-5.995	-.204
	10	-4.464(*)	.948	.000	-7.680	-1.248
	11	-5.026(*)	.978	.000	-8.343	-1.709
	12	-4.502(*)	.943	.000	-7.701	-1.303
	1	6.279(*)	.885	.000	3.278	9.280
	2	5.312(*)	.818	.000	2.537	8.086
	3	3.963(*)	.817	.000	1.193	6.734
	4	1.597	.734	.869	-.893	4.087
	5	.335	.592	1.000	-1.673	2.342
	7	-1.380	.556	.594	-3.267	.506
	8	-2.441	.720	.051	-4.884	.002
	9	-2.765	.876	.109	-5.737	.208
7	10	-4.129(*)	.985	.002	-7.469	-.789
	11	-4.691(*)	1.032	.001	-8.191	-1.191
	12	-4.167(*)	.973	.002	-7.468	-.866
	1	7.659(*)	.936	.000	4.483	10.836
	2	6.692(*)	.863	.000	3.764	9.621
	3	5.344(*)	.868	.000	2.398	8.289
	4	2.977(*)	.850	.034	.095	5.859
	5	1.715	.736	.744	-.783	4.213
	6	1.380	.556	.594	-.506	3.267

8	8	-1.060	.571	.987	-2.996	.875
	9	-1.384	.777	.995	-4.021	1.253
	10	-2.749	.905	.157	-5.820	.322
	11	-3.311(*)	.966	.044	-6.589	-.033
	12	-2.787	.906	.139	-5.860	.287
	1	8.720(*)	.969	.000	5.432	12.007
	2	7.753(*)	.891	.000	4.729	10.777
	3	6.404(*)	.869	.000	3.455	9.354
	4	4.038(*)	.841	.000	1.183	6.892
	5	2.775(*)	.769	.023	.166	5.384
	6	2.441	.720	.051	-.002	4.884
	7	1.060	.571	.987	-.875	2.996
9	9	-.324	.577	1.000	-2.280	1.632
	10	-1.689	.762	.839	-4.272	.895
	11	-2.250	.836	.389	-5.085	.584
	12	-1.726	.817	.907	-4.499	1.046
	1	9.044(*)	1.038	.000	5.521	12.566
	2	8.077(*)	.973	.000	4.776	11.378
	3	6.728(*)	.954	.000	3.492	9.964
	4	4.362(*)	.935	.000	1.190	7.533
	5	3.099(*)	.854	.021	.204	5.995
	6	2.765	.876	.109	-.208	5.737
	7	1.384	.777	.995	-1.253	4.021
	8	.324	.577	1.000	-1.632	2.280
10	10	-1.365	.620	.851	-3.467	.738
	11	-1.927	.788	.631	-4.599	.746
	12	-1.402	.748	.985	-3.941	1.136
	1	10.408(*)	1.047	.000	6.856	13.961
	2	9.441(*)	.985	.000	6.101	12.781
	3	8.093(*)	.966	.000	4.815	11.370
	4	5.726(*)	.989	.000	2.372	9.081
	5	4.464(*)	.948	.000	1.248	7.680
	6	4.129(*)	.985	.002	.789	7.469

11	7	2.749	.905	.157	-.322	5.820
	8	1.689	.762	.839	-.895	4.272
	9	1.365	.620	.851	-.738	3.467
	11	-.562	.558	1.000	-2.455	1.331
	12	-.038	.661	1.000	-2.280	2.204
	1	10.970(*)	1.067	.000	7.350	14.590
	2	10.003(*)	1.003	.000	6.600	13.406
	3	8.655(*)	.970	.000	5.363	11.946
	4	6.288(*)	1.011	.000	2.860	9.716
	5	5.026(*)	.978	.000	1.709	8.343
	6	4.691(*)	1.032	.001	1.191	8.191
12	7	3.311(*)	.966	.044	.033	6.589
	8	2.250	.836	.389	-.584	5.085
	9	1.927	.788	.631	-.746	4.599
	10	.562	.558	1.000	-1.331	2.455
	12	.524	.482	1.000	-1.110	2.158
	1	10.446(*)	1.033	.000	6.942	13.950
	2	9.479(*)	.974	.000	6.175	12.783
	3	8.131(*)	.955	.000	4.890	11.371
	4	5.764(*)	.987	.000	2.415	9.113
	5	4.502(*)	.943	.000	1.303	7.701
	6	4.167(*)	.973	.002	.866	7.468
	7	2.787	.906	.139	-.287	5.860
	8	1.726	.817	.907	-1.046	4.499
	9	1.402	.748	.985	-1.136	3.941
	10	.038	.661	1.000	-2.204	2.280
	11	-.524	.482	1.000	-2.158	1.110

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	44.426	.678	43.092	45.760
	2	45.117	.774	43.595	46.639
	3	45.527	.885	43.786	47.267
	4	48.548	1.097	46.389	50.707
	5	48.952	1.117	46.754	51.150
	6	50.170	1.211	47.789	52.552
	7	51.447	1.252	48.983	53.911
	8	52.186	1.297	49.634	54.738
	9	53.580	1.357	50.911	56.249
	10	53.670	1.386	50.944	56.396
	11	54.213	1.431	51.398	57.027
	12	54.803	1.382	52.085	57.521
Services - Financial, Business, Personal	1	42.180	1.315	39.593	44.767
	2	43.500	1.500	40.548	46.452
	3	45.600	1.716	42.225	48.975
	4	47.200	2.128	43.014	51.386
	5	48.940	2.166	44.679	53.201
	6	47.700	2.348	43.082	52.318
	7	49.040	2.429	44.263	53.817
	8	49.560	2.516	44.612	54.508
	9	53.540	2.631	48.365	58.715
	10	55.340	2.687	50.054	60.626
	11	56.500	2.774	51.042	61.958
	12	55.360	2.679	50.090	60.630
Transportation & Utilities	1	43.714	1.328	41.101	46.327
	2	44.551	1.516	41.569	47.533
	3	45.776	1.733	42.366	49.185
	4	49.020	2.150	44.792	53.249
	5	50.265	2.188	45.961	54.570

Whole and Retail Trade	6	51.286	2.372	46.621	55.951
	7	53.531	2.453	48.705	58.356
	8	54.633	2.541	49.634	59.631
	9	52.735	2.658	47.507	57.962
	10	54.143	2.714	48.803	59.482
	11	54.388	2.803	48.875	59.901
	12	53.061	2.706	47.738	58.385
	1	44.220	1.315	41.633	46.807
	2	45.240	1.500	42.288	48.192
	3	46.900	1.716	43.525	50.275
	4	48.500	2.128	44.314	52.686
	5	50.160	2.166	45.899	54.421
	6	50.500	2.348	45.882	55.118
	7	51.160	2.429	46.383	55.937
	8	53.040	2.516	48.092	57.988
	9	50.860	2.631	45.685	56.035
	10	53.020	2.687	47.734	58.306
	11	53.320	2.774	47.862	58.778
	12	53.100	2.679	47.830	58.370

### ***General Linear Model of PSIC for Employee Relations***

#### **Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50

3	Transportation & Utilities	49
4	Whole and Retail Trade	50

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	7130.648	11	648.241	6.128	.000	.018	1.000
	Greenhouse-Geisser	7130.648	3.982	1790.823	6.128	.000	.018	.987
	Huynh-Feldt	7130.648	4.072	1751.018	6.128	.000	.018	.989
	Lower-bound	7130.648	1.000	7130.648	6.128	.014	.018	.694
year * psic	Sphericity Assumed	5536.219	33	167.764	1.586	.018	.014	.995
	Greenhouse-Geisser	5536.219	11.945	463.464	1.586	.090	.014	.839
	Huynh-Feldt	5536.219	12.217	453.162	1.586	.088	.014	.846
	Lower-bound	5536.219	3.000	1845.406	1.586	.193	.014	.416
Error(year)	Sphericity Assumed	387476.010	3663	105.781				
	Greenhouse-Geisser	387476.010	1325.930	292.230				
	Huynh-Feldt	387476.010	1356.072	285.734				
	Lower-bound	387476.010	333.000	1163.592				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3424.231	1	3424.231	7.176	.008	.021	.761

year * psic	Quadratic	2922.305	1	2922.305	14.686	.000	.042	.969
	Cubic	44.435	1	44.435	.379	.539	.001	.094
	Linear	1932.832	3	644.277	1.350	.258	.012	.359
	Quadratic	742.496	3	247.499	1.244	.294	.011	.332
	Cubic	281.827	3	93.942	.800	.494	.007	.223
Error(year)	Linear	158903.970	333	477.189				
	Quadratic	66261.721	333	198.984				
	Cubic	39080.558	333	117.359				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	12642.351	3	4214.117	2.066	.104	.018	.527
Error	679162.316	333	2039.526				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC Categories	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
Manufacturing	51.446	.951	49.576	53.316
Services - Financial, Business, Personal	48.653	1.844	45.027	52.280
Transportation & Utilities	47.293	1.862	43.629	50.956
Whole and Retail Trade	47.933	1.844	44.307	51.560

### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	2.793	2.074	.694	-2.698	8.283
	Transportation & Utilities	4.153	2.091	.255	-1.381	9.688
	Whole and Retail Trade	3.513	2.074	.437	-1.978	9.003
Services - Financial, Business, Personal	Manufacturing	-2.793	2.074	.694	-8.283	2.698
	Transportation & Utilities	1.361	2.621	.996	-5.575	8.297
	Whole and Retail Trade	.720	2.607	1.000	-6.181	7.621
Transportation & Utilities	Manufacturing	-4.153	2.091	.255	-9.688	1.381
	Services - Financial, Business, Personal	-1.361	2.621	.996	-8.297	5.575
	Whole and Retail Trade	-.641	2.621	1.000	-7.577	6.295
Whole and Retail Trade	Manufacturing	-3.513	2.074	.437	-9.003	1.978
	Services - Financial, Business, Personal	-.720	2.607	1.000	-7.621	6.181
	Transportation & Utilities	.641	2.621	1.000	-6.295	7.577

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests



Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1053.529	3	351.176	2.066	.104	.018	.527
Error	56596.860	333	169.961				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. Year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	45.066	.769	43.554	46.578
2	46.876	.881	45.143	48.609
3	47.286	.923	45.471	49.101
4	49.412	.990	47.464	51.360
5	49.953	1.041	47.906	52.001
6	48.704	1.013	46.711	50.696
7	49.831	1.086	47.694	51.969
8	50.734	1.181	48.410	53.057
9	49.687	1.156	47.413	51.961
10	50.084	1.135	47.851	52.317
11	49.436	1.133	47.207	51.666
12	48.905	1.168	46.607	51.203

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.810	.605	.178	-3.861	.241
	3	-2.220	.711	.121	-4.631	.191
	4	-4.346(*)	.929	.000	-7.497	-1.195
	5	-4.887(*)	.940	.000	-8.075	-1.700
	6	-3.638(*)	.933	.008	-6.802	-.473
	7	-4.765(*)	.987	.000	-8.113	-1.418
	8	-5.668(*)	1.103	.000	-9.411	-1.924
	9	-4.621(*)	1.086	.002	-8.305	-.937
	10	-5.018(*)	1.138	.001	-8.879	-1.157
	11	-4.370(*)	1.158	.012	-8.299	-.442
	12	-3.839	1.188	.086	-7.870	.192
2	1	1.810	.605	.178	-.241	3.861
	3	-.410	.552	1.000	-2.281	1.462
	4	-2.536	.842	.169	-5.393	.322
	5	-3.077(*)	.892	.041	-6.104	-.051
	6	-1.827	.920	.961	-4.948	1.294
	7	-2.955	.971	.153	-6.248	.338
	8	-3.857(*)	1.089	.030	-7.552	-.162
	9	-2.811	1.079	.472	-6.472	.851
	10	-3.208	1.126	.265	-7.027	.611
	11	-2.560	1.148	.829	-6.454	1.334
	12	-2.029	1.181	.998	-6.035	1.978
3	1	2.220	.711	.121	-.191	4.631
	2	.410	.552	1.000	-1.462	2.281
	4	-2.126	.685	.129	-4.451	.199
	5	-2.667	.852	.118	-5.558	.223
	6	-1.418	.919	1.000	-4.535	1.700
	7	-2.545	.957	.420	-5.792	.702
	8	-3.448	1.055	.076	-7.025	.130

4	9	-2.401	1.034	.750	-5.908	1.106
	10	-2.798	1.060	.438	-6.395	.799
	11	-2.150	1.084	.962	-5.829	1.528
	12	-1.619	1.115	1.000	-5.400	2.162
	1	4.346(*)	.929	.000	1.195	7.497
	2	2.536	.842	.169	-.322	5.393
	3	2.126	.685	.129	-.199	4.451
	5	-.541	.644	1.000	-2.726	1.644
	6	.708	.888	1.000	-2.304	3.721
	7	-.419	.947	1.000	-3.632	2.794
	8	-1.322	1.042	1.000	-4.858	2.215
	9	-.275	1.030	1.000	-3.770	3.221
5	10	-.672	1.093	1.000	-4.380	3.036
	11	-.024	1.118	1.000	-3.818	3.769
	12	.507	1.157	1.000	-3.416	4.430
	1	4.887(*)	.940	.000	1.700	8.075
	2	3.077(*)	.892	.041	.051	6.104
	3	2.667	.852	.118	-.223	5.558
	4	.541	.644	1.000	-1.644	2.726
	6	1.250	.748	.999	-1.288	3.788
	7	.122	.880	1.000	-2.865	3.108
	8	-.780	1.031	1.000	-4.277	2.716
	9	.266	1.009	1.000	-3.157	3.690
	10	-.131	1.125	1.000	-3.946	3.685
6	11	.517	1.169	1.000	-3.448	4.482
	12	1.048	1.222	1.000	-3.095	5.192
	1	3.638(*)	.933	.008	.473	6.802
	2	1.827	.920	.961	-1.294	4.948
	3	1.418	.919	1.000	-1.700	4.535
	4	-.708	.888	1.000	-3.721	2.304
	5	-1.250	.748	.999	-3.788	1.288
	7	-1.128	.520	.874	-2.893	.637
	8	-2.030	.739	.342	-4.536	.476

7	9	-.983	.793	1.000	-3.674	1.707
	10	-1.380	.933	1.000	-4.544	1.783
	11	-.733	1.013	1.000	-4.168	2.702
	12	-.201	1.055	1.000	-3.781	3.378
	1	4.765(*)	.987	.000	1.418	8.113
	2	2.955	.971	.153	-.338	6.248
	3	2.545	.957	.420	-.702	5.792
	4	.419	.947	1.000	-2.794	3.632
	5	-.122	.880	1.000	-3.108	2.865
	6	1.128	.520	.874	-.637	2.893
	8	-.902	.571	1.000	-2.841	1.036
	9	.144	.673	1.000	-2.138	2.426
8	10	-.253	.855	1.000	-3.154	2.649
	11	.395	.954	1.000	-2.841	3.631
	12	.926	1.016	1.000	-2.521	4.374
	1	5.668(*)	1.103	.000	1.924	9.411
	2	3.857(*)	1.089	.030	.162	7.552
	3	3.448	1.055	.076	-.130	7.025
	4	1.322	1.042	1.000	-2.215	4.858
	5	.780	1.031	1.000	-2.716	4.277
	6	2.030	.739	.342	-.476	4.536
	7	.902	.571	1.000	-1.036	2.841
	9	1.047	.481	.869	-.586	2.679
	10	.650	.714	1.000	-1.774	3.073
9	11	1.297	.808	1.000	-1.443	4.037
	12	1.829	.882	.927	-1.163	4.820
	1	4.621(*)	1.086	.002	.937	8.305
	2	2.811	1.079	.472	-.851	6.472
	3	2.401	1.034	.750	-1.106	5.908
	4	.275	1.030	1.000	-3.221	3.770
	5	-.266	1.009	1.000	-3.690	3.157
	6	.983	.793	1.000	-1.707	3.674
	7	-.144	.673	1.000	-2.426	2.138

10	8	-1.047	.481	.869	-2.679	.586
	10	-.397	.603	1.000	-2.442	1.647
	11	.251	.725	1.000	-2.209	2.710
	12	.782	.803	1.000	-1.942	3.506
	1	5.018(*)	1.138	.001	1.157	8.879
	2	3.208	1.126	.265	-.611	7.027
	3	2.798	1.060	.438	-.799	6.395
	4	.672	1.093	1.000	-3.036	4.380
	5	.131	1.125	1.000	-3.685	3.946
	6	1.380	.933	1.000	-1.783	4.544
	7	.253	.855	1.000	-2.649	3.154
	8	-.650	.714	1.000	-3.073	1.774
	9	.397	.603	1.000	-1.647	2.442
	11	.648	.444	1.000	-.859	2.154
11	12	1.179	.568	.926	-.747	3.105
	1	4.370(*)	1.158	.012	.442	8.299
	2	2.560	1.148	.829	-1.334	6.454
	3	2.150	1.084	.962	-1.528	5.829
	4	.024	1.118	1.000	-3.769	3.818
	5	-.517	1.169	1.000	-4.482	3.448
	6	.733	1.013	1.000	-2.702	4.168
	7	-.395	.954	1.000	-3.631	2.841
	8	-1.297	.808	1.000	-4.037	1.443
	9	-.251	.725	1.000	-2.710	2.209
12	10	-.648	.444	1.000	-2.154	.859
	12	.531	.370	1.000	-.725	1.788
	1	3.839	1.188	.086	-.192	7.870
	2	2.029	1.181	.998	-1.978	6.035
	3	1.619	1.115	1.000	-2.162	5.400
	4	-.507	1.157	1.000	-4.430	3.416
	5	-1.048	1.222	1.000	-5.192	3.095
	6	.201	1.055	1.000	-3.378	3.781
	7	-.926	1.016	1.000	-4.374	2.521

8	-1.829	.882	.927	-4.820	1.163
9	-.782	.803	1.000	-3.506	1.942
10	-1.179	.568	.926	-3.105	.747
11	-.531	.370	1.000	-1.788	.725

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC Categories	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	47.234	.875	45.514	48.954
	2	49.319	1.002	47.347	51.291
	3	50.468	1.050	48.403	52.534
	4	51.149	1.127	48.932	53.366
	5	52.553	1.185	50.223	54.883
	6	51.793	1.152	49.526	54.059
	7	52.229	1.236	49.797	54.661
	8	52.628	1.344	49.983	55.272
	9	53.261	1.316	50.673	55.849
	10	53.713	1.292	51.172	56.254
	11	51.926	1.289	49.389	54.462
	12	51.080	1.329	48.465	53.695
Services - Financial, Business, Personal	1	45.520	1.696	42.184	48.856
	2	47.600	1.944	43.776	51.424
	3	47.120	2.036	43.115	51.125
	4	47.600	2.185	43.301	51.899
	5	48.240	2.297	43.721	52.759
	6	47.280	2.235	42.884	51.676
	7	47.120	2.397	42.404	51.836
	8	51.120	2.607	45.993	56.247

Transportation & Utilities	9	49.840	2.551	44.822	54.858
	10	51.760	2.505	46.833	56.687
	11	50.800	2.500	45.882	55.718
	12	49.840	2.577	44.770	54.910
	1	41.510	1.713	38.140	44.880
	2	43.306	1.964	39.443	47.169
	3	43.796	2.057	39.750	47.842
	4	50.980	2.208	46.637	55.322
	5	49.020	2.320	44.456	53.585
	6	45.102	2.257	40.662	49.542
	7	48.857	2.422	44.094	53.621
	8	49.347	2.633	44.168	54.526
Whole and Retail Trade	9	48.367	2.577	43.298	53.436
	10	49.184	2.530	44.207	54.161
	11	49.020	2.526	44.052	53.989
	12	49.020	2.604	43.899	54.142
	1	46.000	1.696	42.664	49.336
	2	47.280	1.944	43.456	51.104
	3	47.760	2.036	43.755	51.765
	4	47.920	2.185	43.621	52.219
	5	50.000	2.297	45.481	54.519
	6	50.640	2.235	46.244	55.036
	7	51.120	2.397	46.404	55.836
	8	49.840	2.607	44.713	54.967
	9	47.280	2.551	42.262	52.298
	10	45.680	2.505	40.753	50.607
	11	46.000	2.500	41.082	50.918
	12	45.680	2.577	40.610	50.750

## ***General Linear Model of PSIC for Environment***

**Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	1516.422	11	137.857	1.633	.083	.005	.831
	Greenhouse-Geisser	1516.422	4.899	309.541	1.633	.150	.005	.566
	Huynh-Feldt	1516.422	5.026	301.732	1.633	.148	.005	.574
	Lower-bound	1516.422	1.000	1516.422	1.633	.202	.005	.247
year * psic	Sphericity Assumed	4019.688	33	121.809	1.443	.049	.013	.990
	Greenhouse-Geisser	4019.688	14.697	273.507	1.443	.121	.013	.857
	Huynh-Feldt	4019.688	15.077	266.608	1.443	.119	.013	.864
	Lower-bound	4019.688	3.000	1339.896	1.443	.230	.013	.382
Error(year)	Sphericity Assumed	309263.562	3663	84.429				
	Greenhouse-Geisser	309263.562	1631.348	189.575				
	Huynh-Feldt	309263.562	1673.565	184.793				
	Lower-bound	309263.562	333.000	928.719				

a. Computed using alpha = .05



### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	18.534	1	18.534	.062	.804	.000	.057
	Quadratic	1.682	1	1.682	.010	.921	.000	.051
	Cubic	621.122	1	621.122	5.205	.023	.015	.624
year * psic	Linear	1806.546	3	602.182	2.013	.112	.018	.516
	Quadratic	190.889	3	63.630	.374	.772	.003	.124
	Cubic	805.079	3	268.360	2.249	.083	.020	.567
Error(year)	Linear	99632.987	333	299.198				
	Quadratic	56599.305	333	169.968				
	Cubic	39739.576	333	119.338				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	3406.104	3	1135.368	.473	.701	.004	.146
Error	798847.703	333	2398.942				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	51.065	1.031	49.037	53.094
Services - Financial, Business, Personal	50.695	2.000	46.762	54.628
Transportation & Utilities	49.532	2.020	45.559	53.506
Whole and Retail Trade	48.613	2.000	44.680	52.547

### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	.370	2.250	1.000	-5.585	6.325
	Transportation & Utilities	1.533	2.268	.984	-4.470	7.535
	Whole and Retail Trade	2.452	2.250	.857	-3.503	8.407
Services - Financial, Business, Personal	Manufacturing	-.370	2.250	1.000	-6.325	5.585
	Transportation & Utilities	1.163	2.842	.999	-6.360	8.685
	Whole and Retail Trade	2.082	2.828	.976	-5.403	9.566
Transportation & Utilities	Manufacturing	-1.533	2.268	.984	-7.535	4.470
	Services - Financial, Business, Personal	-1.163	2.842	.999	-8.685	6.360
	Whole and Retail Trade	.919	2.842	1.000	-6.604	8.442
Whole and Retail Trade	Manufacturing	-2.452	2.250	.857	-8.407	3.503
	Services - Financial, Business, Personal	-2.082	2.828	.976	-9.566	5.403
	Transportation & Utilities	-.919	2.842	1.000	-8.442	6.604

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	283.842	3	94.614	.473	.701	.004	.146
Error	66570.642	333	199.912				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.127	.890	49.375	52.878
2	49.935	.973	48.020	51.849
3	49.563	1.054	47.491	51.636
4	48.903	1.085	46.768	51.038
5	49.066	1.057	46.987	51.145
6	50.519	1.092	48.371	52.667
7	50.903	1.164	48.613	53.192
8	50.441	1.153	48.172	52.710
9	49.965	1.104	47.794	52.136
10	50.513	1.089	48.371	52.656
11	48.938	1.109	46.755	51.120
12	49.845	1.006	47.865	51.825

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	1.192	.621	.977	-.915	3.298
	3	1.563	.776	.951	-1.068	4.194
	4	2.224	.851	.462	-.661	5.109
	5	2.060	.865	.695	-.876	4.996
	6	.608	.878	1.000	-2.372	3.588
	7	.224	.909	1.000	-2.861	3.308
	8	.685	.945	1.000	-2.522	3.892
	9	1.162	.972	1.000	-2.135	4.459
	10	.613	.911	1.000	-2.478	3.704
	11	2.189	1.002	.863	-1.210	5.588
	12	1.281	.962	1.000	-1.982	4.544
2	1	-1.192	.621	.977	-3.298	.915
	3	.371	.537	1.000	-1.450	2.192
	4	1.032	.710	1.000	-1.376	3.440
	5	.869	.778	1.000	-1.772	3.509
	6	-.584	.907	1.000	-3.660	2.492
	7	-.968	.936	1.000	-4.141	2.206
	8	-.506	.958	1.000	-3.756	2.743
	9	-.030	.983	1.000	-3.366	3.306
	10	-.579	.909	1.000	-3.663	2.506
	11	.997	.966	1.000	-2.278	4.272
	12	.090	.979	1.000	-3.232	3.412
3	1	-1.563	.776	.951	-4.194	1.068

4	2	-.371	.537	1.000	-2.192	1.450
	4	.661	.680	1.000	-1.646	2.968
	5	.497	.806	1.000	-2.236	3.231
	6	-.955	.905	1.000	-4.025	2.114
	7	-1.339	.948	1.000	-4.555	1.876
	8	-.878	.962	1.000	-4.141	2.385
	9	-.401	.977	1.000	-3.716	2.913
	10	-.950	.935	1.000	-4.121	2.221
	11	.626	1.045	1.000	-2.918	4.169
	12	-.282	1.040	1.000	-3.811	3.248
	1	-2.224	.851	.462	-5.109	.661
	2	-1.032	.710	1.000	-3.440	1.376
5	3	-.661	.680	1.000	-2.968	1.646
	5	-.164	.593	1.000	-2.177	1.849
	6	-1.616	.844	.978	-4.480	1.247
	7	-2.000	.932	.888	-5.161	1.161
	8	-1.539	.966	1.000	-4.814	1.737
	9	-1.062	.963	1.000	-4.328	2.203
	10	-1.611	.953	.998	-4.843	1.621
	11	-.035	1.050	1.000	-3.597	3.527
	12	-.943	1.037	1.000	-4.462	2.577
	1	-2.060	.865	.695	-4.996	.876
	2	-.869	.778	1.000	-3.509	1.772
	3	-.497	.806	1.000	-3.231	2.236
6	4	.164	.593	1.000	-1.849	2.177
	6	-1.453	.684	.901	-3.772	.867
	7	-1.836	.775	.706	-4.466	.793
	8	-1.375	.841	.999	-4.228	1.478
	9	-.899	.819	1.000	-3.677	1.880
	10	-1.447	.828	.996	-4.258	1.363
	11	.129	.893	1.000	-2.900	3.157
	12	-.779	.911	1.000	-3.868	2.310
	1	-.608	.878	1.000	-3.588	2.372

7	2	.584	.907	1.000	-2.492	3.660
	3	.955	.905	1.000	-2.114	4.025
	4	1.616	.844	.978	-1.247	4.480
	5	1.453	.684	.901	-.867	3.772
	7	-.384	.446	1.000	-1.895	1.128
	8	.078	.597	1.000	-1.948	2.104
	9	.554	.657	1.000	-1.675	2.783
	10	.005	.715	1.000	-2.421	2.432
	11	1.581	.886	.994	-1.423	4.586
	12	.674	.899	1.000	-2.376	3.724
	1	-.224	.909	1.000	-3.308	2.861
	2	.968	.936	1.000	-2.206	4.141
8	3	1.339	.948	1.000	-1.876	4.555
	4	2.000	.932	.888	-1.161	5.161
	5	1.836	.775	.706	-.793	4.466
	6	.384	.446	1.000	-1.128	1.895
	8	.461	.459	1.000	-1.097	2.020
	9	.938	.568	.999	-.990	2.866
	10	.389	.647	1.000	-1.804	2.583
	11	1.965	.847	.753	-.908	4.839
	12	1.057	.867	1.000	-1.885	3.999
	1	-.685	.945	1.000	-3.892	2.522
	2	.506	.958	1.000	-2.743	3.756
	3	.878	.962	1.000	-2.385	4.141
9	4	1.539	.966	1.000	-1.737	4.814
	5	1.375	.841	.999	-1.478	4.228
	6	-.078	.597	1.000	-2.104	1.948
	7	-.461	.459	1.000	-2.020	1.097
	9	.476	.408	1.000	-.909	1.861
	10	-.072	.547	1.000	-1.927	1.783
	11	1.504	.817	.989	-1.268	4.275
	12	.596	.871	1.000	-2.357	3.549
	1	-1.162	.972	1.000	-4.459	2.135

10	2	.030	.983	1.000	-3.306	3.366
	3	.401	.977	1.000	-2.913	3.716
	4	1.062	.963	1.000	-2.203	4.328
	5	.899	.819	1.000	-1.880	3.677
	6	-.554	.657	1.000	-2.783	1.675
	7	-.938	.568	.999	-2.866	.990
	8	-.476	.408	1.000	-1.861	.909
	10	-.549	.509	1.000	-2.275	1.178
	11	1.027	.740	1.000	-1.483	3.537
	12	.120	.801	1.000	-2.596	2.835
	1	-.613	.911	1.000	-3.704	2.478
	2	.579	.909	1.000	-2.506	3.663
11	3	.950	.935	1.000	-2.221	4.121
	4	1.611	.953	.998	-1.621	4.843
	5	1.447	.828	.996	-1.363	4.258
	6	-.005	.715	1.000	-2.432	2.421
	7	-.389	.647	1.000	-2.583	1.804
	8	.072	.547	1.000	-1.783	1.927
	9	.549	.509	1.000	-1.178	2.275
	11	1.576	.590	.410	-.426	3.578
	12	.668	.700	1.000	-1.706	3.043
	1	-2.189	1.002	.863	-5.588	1.210
	2	-.997	.966	1.000	-4.272	2.278
	3	-.626	1.045	1.000	-4.169	2.918
12	4	.035	1.050	1.000	-3.527	3.597
	5	-.129	.893	1.000	-3.157	2.900
	6	-1.581	.886	.994	-4.586	1.423
	7	-1.965	.847	.753	-4.839	.908
	8	-1.504	.817	.989	-4.275	1.268
	9	-1.027	.740	1.000	-3.537	1.483
	10	-1.576	.590	.410	-3.578	.426
	12	-.908	.585	1.000	-2.892	1.077
	1	-1.281	.962	1.000	-4.544	1.982

2	-.090	.979	1.000	-3.412	3.232
3	.282	1.040	1.000	-3.248	3.811
4	.943	1.037	1.000	-2.577	4.462
5	.779	.911	1.000	-2.310	3.868
6	-.674	.899	1.000	-3.724	2.376
7	-1.057	.867	1.000	-3.999	1.885
8	-.596	.871	1.000	-3.549	2.357
9	-.120	.801	1.000	-2.835	2.596
10	-.668	.700	1.000	-3.043	1.706
11	.908	.585	1.000	-1.077	2.892

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	50.952	1.013	48.959	52.945
	2	50.096	1.107	47.917	52.274
	3	49.335	1.199	46.977	51.693
	4	49.633	1.235	47.204	52.062
	5	50.516	1.203	48.150	52.882
	6	51.633	1.243	49.189	54.077
	7	52.165	1.324	49.560	54.770
	8	52.356	1.312	49.775	54.938
	9	51.957	1.256	49.487	54.428
	10	51.074	1.239	48.637	53.512
	11	50.479	1.262	47.995	52.962
	12	52.585	1.145	50.332	54.838
Services - Financial, Business, Personal	1	51.620	1.964	47.756	55.484
	2	51.280	2.147	47.056	55.504



Transportation & Utilities	3	50.600	2.325	46.027	55.173
	4	50.900	2.395	46.189	55.611
	5	51.260	2.332	46.673	55.847
	6	50.260	2.409	45.520	55.000
	7	51.100	2.568	46.049	56.151
	8	49.920	2.545	44.914	54.926
	9	49.420	2.435	44.629	54.211
	10	50.440	2.403	45.713	55.167
	11	50.100	2.448	45.284	54.916
	12	51.440	2.221	47.072	55.808
	1	52.694	1.984	48.790	56.597
	2	51.163	2.169	46.897	55.430
Whole and Retail Trade	3	49.939	2.348	45.319	54.558
	4	48.878	2.419	44.119	53.636
	5	46.449	2.356	41.815	51.083
	6	51.122	2.434	46.335	55.910
	7	51.286	2.594	46.183	56.388
	8	50.429	2.571	45.372	55.485
	9	50.102	2.460	45.263	54.941
	10	50.959	2.427	46.184	55.734
	11	45.592	2.473	40.727	50.456
	12	45.776	2.243	41.363	50.188
	1	49.240	1.964	45.376	53.104
	2	47.200	2.147	42.976	51.424
	3	48.380	2.325	43.807	52.953
	4	46.200	2.395	41.489	50.911
	5	48.040	2.332	43.453	52.627
	6	49.060	2.409	44.320	53.800
	7	49.060	2.568	44.009	54.111
	8	49.060	2.545	44.054	54.066
	9	48.380	2.435	43.589	53.171
	10	49.580	2.403	44.853	54.307

11	49.580	2.448	44.764	54.396
12	49.580	2.221	45.212	53.948

### ***General Linear Model of PSIC for Product***

#### **Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	10623.792	11	965.799	11.444	.000	.033	1.000
	Greenhouse-Geisser	10623.792	3.585	2963.315	11.444	.000	.033	1.000
	Huynh-Feldt	10623.792	3.662	2901.421	11.444	.000	.033	1.000
	Lower-bound	10623.792	1.000	10623.792	11.444	.001	.033	.921
year * psic	Sphericity Assumed	3033.176	33	91.914	1.089	.333	.010	.942
	Greenhouse-Geisser	3033.176	10.755	282.017	1.089	.366	.010	.607

Error(year)	Huynh-Feldt	3033.176	10.985	276.126	1.089	.366	.010	.614
	Lower-bound	3033.176	3.000	1011.059	1.089	.354	.010	.294
	Sphericity Assumed	309137.303	3663	84.395				
	Greenhouse-Geisser	309137.303	1193.839	258.944				
	Huynh-Feldt	309137.303	1219.307	253.535				
	Lower-bound	309137.303	333.000	928.340				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	9540.246	1	9540.246	22.706	.000	.064	.997
	Quadratic	634.103	1	634.103	3.976	.047	.012	.511
	Cubic	267.291	1	267.291	2.788	.096	.008	.384
year * psic	Linear	399.194	3	133.065	.317	.813	.003	.111
	Quadratic	1135.320	3	378.440	2.373	.070	.021	.592
	Cubic	224.542	3	74.847	.781	.505	.007	.218
Error(year)	Linear	139914.455	333	420.164				
	Quadratic	53110.674	333	159.492				
	Cubic	31920.359	333	95.857				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	9258.960	3	3086.320	1.293	.277	.012	.345
Error	794782.857	333	2386.735				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	51.348	1.029	49.324	53.371
Services - Financial, Business, Personal	48.597	1.994	44.673	52.520
Transportation & Utilities	47.384	2.015	43.421	51.348
Whole and Retail Trade	50.598	1.994	46.675	54.522

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	2.751	2.244	.777	-3.189	8.690
	Transportation & Utilities	3.963	2.262	.396	-2.024	9.950
	Whole and Retail Trade	.749	2.244	1.000	-5.190	6.689
Services - Financial, Business, Personal	Manufacturing	-2.751	2.244	.777	-8.690	3.189
	Transportation & Utilities	1.212	2.835	.999	-6.291	8.716
	Whole and Retail Trade	-2.002	2.821	.980	-9.467	5.464
Transportation & Utilities	Manufacturing	-3.963	2.262	.396	-9.950	2.024
	Services - Financial, Business, Personal	-1.212	2.835	.999	-8.716	6.291

Whole and Retail Trade	Business, Personal					
	Whole and Retail Trade	-3.214	2.835	.833	-10.717	4.290
	Manufacturing	-.749	2.244	1.000	-6.689	5.190
	Services - Financial, Business, Personal	2.002	2.821	.980	-5.464	9.467
	Transportation & Utilities	3.214	2.835	.833	-4.290	10.717

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	771.580	3	257.193	1.293	.277	.012	.345
Error	66231.905	333	198.895				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.829	.939	49.982	53.675
2	51.552	.992	49.600	53.503
3	51.400	.979	49.474	53.326
4	50.537	1.031	48.509	52.566
5	50.314	1.008	48.331	52.296
6	49.986	1.030	47.961	52.011
7	49.782	1.083	47.652	51.913

8	49.347	1.092	47.199	51.496
9	48.717	1.100	46.552	50.881
10	48.538	1.135	46.306	50.771
11	46.489	1.172	44.183	48.794
12	45.290	1.190	42.949	47.632

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	.277	.604	1.000	-1.772	2.326
	3	.429	.700	1.000	-1.944	2.801
	4	1.292	.829	1.000	-1.521	4.104
	5	1.515	.905	.999	-1.554	4.584
	6	1.843	.953	.975	-1.391	5.077
	7	2.046	1.029	.960	-1.445	5.537
	8	2.481	.994	.579	-.891	5.853
	9	3.112	1.025	.157	-.365	6.589
	10	3.290	1.019	.086	-.166	6.747
	11	5.340(*)	1.116	.000	1.554	9.126
	12	6.538(*)	1.142	.000	2.666	10.411
2	1	-.277	.604	1.000	-2.326	1.772
	3	.151	.475	1.000	-1.460	1.762
	4	1.014	.729	1.000	-1.459	3.488
	5	1.238	.834	1.000	-1.592	4.067
	6	1.566	.899	.997	-1.483	4.614
	7	1.769	.992	.994	-1.594	5.133
	8	2.204	.973	.801	-1.096	5.505
	9	2.835	1.011	.297	-.593	6.263
	10	3.013	1.025	.207	-.463	6.490

3	11	5.063(*)	1.122	.001	1.258	8.867
	12	6.261(*)	1.162	.000	2.320	10.202
	1	-.429	.700	1.000	-2.801	1.944
	2	-.151	.475	1.000	-1.762	1.460
	4	.863	.596	1.000	-1.160	2.886
	5	1.086	.734	1.000	-1.404	3.577
	6	1.414	.859	.999	-1.499	4.327
	7	1.618	.957	.998	-1.630	4.865
	8	2.053	.931	.848	-1.105	5.211
	9	2.683	.990	.373	-.673	6.040
	10	2.862	1.024	.305	-.612	6.336
	11	4.911(*)	1.101	.001	1.176	8.647
4	12	6.110(*)	1.130	.000	2.275	9.944
	1	-1.292	.829	1.000	-4.104	1.521
	2	-1.014	.729	1.000	-3.488	1.459
	3	-.863	.596	1.000	-2.886	1.160
	5	.223	.546	1.000	-1.629	2.076
	6	.551	.729	1.000	-1.923	3.025
	7	.755	.835	1.000	-2.076	3.585
	8	1.190	.840	1.000	-1.660	4.039
	9	1.820	.914	.959	-1.281	4.922
	10	1.999	.947	.908	-1.214	5.212
	11	4.048(*)	1.026	.006	.569	7.528
	12	5.247(*)	1.051	.000	1.680	8.814
5	1	-1.515	.905	.999	-4.584	1.554
	2	-1.238	.834	1.000	-4.067	1.592
	3	-1.086	.734	1.000	-3.577	1.404
	4	-.223	.546	1.000	-2.076	1.629
	6	.328	.529	1.000	-1.467	2.123
	7	.531	.676	1.000	-1.760	2.823
	8	.966	.715	1.000	-1.460	3.393
	9	1.597	.804	.961	-1.132	4.326
	10	1.775	.842	.909	-1.080	4.631

6	11	3.825(*)	.909	.002	.741	6.909
	12	5.023(*)	.944	.000	1.820	8.227
	1	-1.843	.953	.975	-5.077	1.391
	2	-1.566	.899	.997	-4.614	1.483
	3	-1.414	.859	.999	-4.327	1.499
	4	-.551	.729	1.000	-3.025	1.923
	5	-.328	.529	1.000	-2.123	1.467
	7	.203	.455	1.000	-1.339	1.746
	8	.638	.555	1.000	-1.244	2.521
	9	1.269	.662	.978	-.976	3.515
	10	1.448	.708	.940	-.954	3.849
	11	3.497(*)	.824	.002	.702	6.293
7	12	4.696(*)	.851	.000	1.807	7.584
	1	-2.046	1.029	.960	-5.537	1.445
	2	-1.769	.992	.994	-5.133	1.594
	3	-1.618	.957	.998	-4.865	1.630
	4	-.755	.835	1.000	-3.585	2.076
	5	-.531	.676	1.000	-2.823	1.760
	6	-.203	.455	1.000	-1.746	1.339
	8	.435	.364	1.000	-.798	1.668
	9	1.066	.551	.974	-.803	2.935
	10	1.244	.671	.988	-1.033	3.521
	11	3.294(*)	.789	.002	.619	5.969
	12	4.492(*)	.827	.000	1.688	7.296
8	1	-2.481	.994	.579	-5.853	.891
	2	-2.204	.973	.801	-5.505	1.096
	3	-2.053	.931	.848	-5.211	1.105
	4	-1.190	.840	1.000	-4.039	1.660
	5	-.966	.715	1.000	-3.393	1.460
	6	-.638	.555	1.000	-2.521	1.244
	7	-.435	.364	1.000	-1.668	.798
	9	.631	.430	1.000	-.830	2.091
	10	.809	.592	1.000	-1.198	2.817



9	11	2.859(*)	.749	.011	.317	5.400
	12	4.057(*)	.805	.000	1.328	6.786
	1	-3.112	1.025	.157	-6.589	.365
	2	-2.835	1.011	.297	-6.263	.593
	3	-2.683	.990	.373	-6.040	.673
	4	-1.820	.914	.959	-4.922	1.281
	5	-1.597	.804	.961	-4.326	1.132
	6	-1.269	.662	.978	-3.515	.976
	7	-1.066	.551	.974	-2.935	.803
	8	-.631	.430	1.000	-2.091	.830
	10	.178	.426	1.000	-1.268	1.625
	11	2.228(*)	.607	.019	.168	4.288
10	12	3.426(*)	.697	.000	1.062	5.791
	1	-3.290	1.019	.086	-6.747	.166
	2	-3.013	1.025	.207	-6.490	.463
	3	-2.862	1.024	.305	-6.336	.612
	4	-1.999	.947	.908	-5.212	1.214
	5	-1.775	.842	.909	-4.631	1.080
	6	-1.448	.708	.940	-3.849	.954
	7	-1.244	.671	.988	-3.521	1.033
	8	-.809	.592	1.000	-2.817	1.198
	9	-.178	.426	1.000	-1.625	1.268
	11	2.050(*)	.473	.001	.444	3.655
	12	3.248(*)	.594	.000	1.234	5.262
11	1	-5.340(*)	1.116	.000	-9.126	-1.554
	2	-5.063(*)	1.122	.001	-8.867	-1.258
	3	-4.911(*)	1.101	.001	-8.647	-1.176
	4	-4.048(*)	1.026	.006	-7.528	-.569
	5	-3.825(*)	.909	.002	-6.909	-.741
	6	-3.497(*)	.824	.002	-6.293	-.702
	7	-3.294(*)	.789	.002	-5.969	-.619
	8	-2.859(*)	.749	.011	-5.400	-.317
	9	-2.228(*)	.607	.019	-4.288	-.168

12	10	-2.050(*)	.473	.001	-3.655	-.444
	12	1.198	.391	.143	-.127	2.524
	1	-6.538(*)	1.142	.000	-10.411	-2.666
	2	-6.261(*)	1.162	.000	-10.202	-2.320
	3	-6.110(*)	1.130	.000	-9.944	-2.275
	4	-5.247(*)	1.051	.000	-8.814	-1.680
	5	-5.023(*)	.944	.000	-8.227	-1.820
	6	-4.696(*)	.851	.000	-7.584	-1.807
	7	-4.492(*)	.827	.000	-7.296	-1.688
	8	-4.057(*)	.805	.000	-6.786	-1.328
	9	-3.426(*)	.697	.000	-5.791	-1.062
	10	-3.248(*)	.594	.000	-5.262	-1.234
	11	-1.198	.391	.143	-2.524	.127

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	52.936	1.068	50.835	55.038
	2	54.128	1.129	51.907	56.348
	3	54.282	1.114	52.090	56.474
	4	52.186	1.173	49.878	54.494
	5	51.473	1.147	49.218	53.729
	6	50.702	1.172	48.397	53.007
	7	50.452	1.233	48.028	52.877
	8	50.867	1.243	48.422	53.312
	9	50.867	1.252	48.404	53.330
	10	50.346	1.291	47.806	52.886
	11	49.447	1.334	46.823	52.070

Services - Financial, Business, Personal	12	48.484	1.354	45.820	51.148
	1	52.160	2.072	48.085	56.235
	2	50.640	2.189	46.335	54.945
	3	49.880	2.160	45.630	54.130
	4	49.300	2.275	44.824	53.776
	5	50.060	2.224	45.686	54.434
	6	48.920	2.272	44.451	53.389
	7	49.880	2.390	45.179	54.581
	8	49.480	2.410	44.739	54.221
	9	47.560	2.428	42.784	52.336
	10	47.380	2.504	42.455	52.305
	11	44.520	2.586	39.433	49.607
Transportation & Utilities	12	43.380	2.626	38.214	48.546
	1	47.918	2.093	43.802	52.035
	2	47.918	2.211	43.569	52.268
	3	47.918	2.182	43.625	52.211
	4	48.102	2.298	43.581	52.623
	5	49.082	2.246	44.663	53.500
	6	50.061	2.295	45.547	54.575
	7	49.878	2.414	45.128	54.627
	8	48.122	2.434	43.334	52.911
	9	45.980	2.453	41.155	50.804
	10	46.367	2.529	41.392	51.343
	11	44.408	2.612	39.270	49.547
Whole and Retail Trade	12	42.857	2.653	37.639	48.076
	1	54.300	2.072	50.225	58.375
	2	53.520	2.189	49.215	57.825
	3	53.520	2.160	49.270	57.770
	4	52.560	2.275	48.084	57.036
	5	50.640	2.224	46.266	55.014
	6	50.260	2.272	45.791	54.729
	7	48.920	2.390	44.219	53.621

8	48.920	2.410	44.179	53.661
9	50.460	2.428	45.684	55.236
10	50.060	2.504	45.135	54.985
11	47.580	2.586	42.493	52.667
12	46.440	2.626	41.274	51.606

### ***General Linear Model of PSIC for Corporate Governance***

#### **Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	30991.860	11	2817.442	21.113	.000	.060	1.000
	Greenhouse-Geisser	30991.860	5.413	5725.554	21.113	.000	.060	1.000

year * psic	Huynh-Feldt	30991.860	5.562	5571.740	21.113	.000	.060	1.000
	Lower-bound	30991.860	1.000	30991.860	21.113	.000	.060	.996
	Sphericity Assumed	4888.456	33	148.135	1.110	.305	.010	.947
Error(year)	Greenhouse-Geisser	4888.456	16.239	301.037	1.110	.339	.010	.758
	Huynh-Feldt	4888.456	16.687	292.950	1.110	.338	.010	.767
	Lower-bound	4888.456	3.000	1629.485	1.110	.345	.010	.299
	Sphericity Assumed	488811.779	3663	133.446				
	Greenhouse-Geisser	488811.779	1802.496	271.186				
	Huynh-Feldt	488811.779	1852.256	263.901				
	Lower-bound	488811.779	333.000	1467.903				

a Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	28282.186	1	28282.186	57.560	.000	.147	1.000
	Quadratic	36.778	1	36.778	.164	.686	.000	.069
	Cubic	952.133	1	952.133	6.275	.013	.018	.705
year * psic	Linear	945.251	3	315.084	.641	.589	.006	.184
	Quadratic	1357.703	3	452.568	2.014	.112	.018	.516
	Cubic	617.792	3	205.931	1.357	.256	.012	.361
Error(year)	Linear	163620.060	333	491.352				
	Quadratic	74815.197	333	224.670				
	Cubic	50527.677	333	151.735				

a Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	5658.178	3	1886.059	1.078	.359	.010	.291
Error	582724.015	333	1749.922				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	49.762	.881	48.030	51.495
Services - Financial, Business, Personal	51.670	1.708	48.311	55.029
Transportation & Utilities	48.709	1.725	45.316	52.103
Whole and Retail Trade	52.298	1.708	48.939	55.658

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	-1.908	1.922	.902	-6.993	3.178
	Transportation & Utilities	1.053	1.937	.995	-4.073	6.180
	Whole and Retail Trade	-2.536	1.922	.713	-7.622	2.550

Services - Financial, Business, Personal	Manufacturing	1.908	1.922	.902	-3.178	6.993
	Transportation & Utilities	2.961	2.427	.781	-3.464	9.386
	Whole and Retail Trade	-.628	2.415	1.000	-7.021	5.764
Transportation & Utilities	Manufacturing	-1.053	1.937	.995	-6.180	4.073
	Services - Financial, Business, Personal	-2.961	2.427	.781	-9.386	3.464
	Whole and Retail Trade	-3.589	2.427	.596	-10.014	2.836
Whole and Retail Trade	Manufacturing	2.536	1.922	.713	-2.550	7.622
	Services - Financial, Business, Personal	.628	2.415	1.000	-5.764	7.021
	Transportation & Utilities	3.589	2.427	.596	-2.836	10.014

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	471.515	3	157.172	1.078	.359	.010	.291
Error	48560.335	333	145.827				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
1	56.416	.403	55.622	57.209
2	55.532	.777	54.004	57.060
3	52.993	.868	51.285	54.702
4	51.497	1.012	49.505	53.489
5	50.138	1.067	48.039	52.237
6	52.017	1.094	49.864	54.170
7	51.135	1.152	48.869	53.400
8	48.896	1.209	46.518	51.274
9	49.625	1.187	47.290	51.961
10	47.530	1.185	45.199	49.861
11	46.080	1.171	43.777	48.383
12	45.460	1.168	43.162	47.758

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	.884	.719	1.000	-1.556	3.324
	3	3.422(*)	.858	.005	.511	6.334
	4	4.919(*)	1.038	.000	1.399	8.439
	5	6.278(*)	1.100	.000	2.546	10.009
	6	4.399(*)	1.134	.008	.552	8.246
	7	5.281(*)	1.206	.001	1.192	9.371
	8	7.520(*)	1.256	.000	3.260	11.779
	9	6.790(*)	1.233	.000	2.609	10.972
	10	8.886(*)	1.254	.000	4.633	13.138
	11	10.336(*)	1.242	.000	6.122	14.550
	12	10.956(*)	1.235	.000	6.766	15.146
2	1	-.884	.719	1.000	-3.324	1.556



3	3	2.538(*)	.674	.013	.254	4.823
	4	4.035(*)	.892	.001	1.010	7.060
	5	5.394(*)	.978	.000	2.077	8.710
	6	3.515(*)	1.013	.038	.080	6.950
	7	4.397(*)	1.112	.006	.625	8.170
	8	6.636(*)	1.149	.000	2.737	10.534
	9	5.906(*)	1.193	.000	1.860	9.953
	10	8.001(*)	1.247	.000	3.770	12.233
	11	9.452(*)	1.221	.000	5.309	13.595
	12	10.072(*)	1.224	.000	5.920	14.224
	1	-3.422(*)	.858	.005	-6.334	-.511
	2	-2.538(*)	.674	.013	-4.823	-.254
4	4	1.496	.846	.995	-1.373	4.366
	5	2.855	.922	.131	-.273	5.983
	6	.976	1.018	1.000	-2.476	4.429
	7	1.859	1.148	.999	-2.035	5.753
	8	4.097(*)	1.154	.029	.181	8.013
	9	3.368	1.208	.311	-.731	7.467
	10	5.463(*)	1.285	.002	1.104	9.823
	11	6.913(*)	1.246	.000	2.686	11.141
	12	7.534(*)	1.263	.000	3.249	11.818
	1	-4.919(*)	1.038	.000	-8.439	-1.399
	2	-4.035(*)	.892	.001	-7.060	-1.010
	3	-1.496	.846	.995	-4.366	1.373
5	5	1.359	.697	.971	-1.006	3.723
	6	-.520	.964	1.000	-3.792	2.752
	7	.363	1.048	1.000	-3.194	3.919
	8	2.601	1.088	.685	-1.089	6.291
	9	1.872	1.164	.999	-2.077	5.820
	10	3.967	1.190	.061	-.069	8.002
	11	5.417(*)	1.130	.000	1.584	9.250
	12	6.037(*)	1.136	.000	2.184	9.890
	1	-6.278(*)	1.100	.000	-10.009	-2.546

6	2	-5.394(*)	.978	.000	-8.710	-2.077
	3	-2.855	.922	.131	-5.983	.273
	4	-1.359	.697	.971	-3.723	1.006
	6	-1.879	.846	.837	-4.750	.992
	7	-.996	.941	1.000	-4.189	2.197
	8	1.242	.984	1.000	-2.097	4.581
	9	.513	1.061	1.000	-3.085	4.110
	10	2.608	1.088	.679	-1.083	6.299
	11	4.058(*)	1.038	.007	.536	7.580
	12	4.678(*)	1.043	.001	1.141	8.216
	1	-4.399(*)	1.134	.008	-8.246	-.552
	2	-3.515(*)	1.013	.038	-6.950	-.080
7	3	-.976	1.018	1.000	-4.429	2.476
	4	.520	.964	1.000	-2.752	3.792
	5	1.879	.846	.837	-.992	4.750
	7	.883	.804	1.000	-1.844	3.609
	8	3.121	.979	.098	-.200	6.441
	9	2.392	1.097	.865	-1.328	6.112
	10	4.487(*)	1.115	.005	.704	8.269
	11	5.937(*)	1.114	.000	2.160	9.715
	12	6.557(*)	1.121	.000	2.754	10.361
	1	-5.281(*)	1.206	.001	-9.371	-1.192
	2	-4.397(*)	1.112	.006	-8.170	-.625
	3	-1.859	1.148	.999	-5.753	2.035
8	4	-.363	1.048	1.000	-3.919	3.194
	5	.996	.941	1.000	-2.197	4.189
	6	-.883	.804	1.000	-3.609	1.844
	8	2.238	.857	.466	-.670	5.147
	9	1.509	.999	1.000	-1.879	4.897
	10	3.604	1.065	.052	-.010	7.218
	11	5.055(*)	1.046	.000	1.506	8.603
	12	5.675(*)	1.057	.000	2.090	9.260
	1	-7.520(*)	1.256	.000	-11.779	-3.260

9	2	-6.636(*)	1.149	.000	-10.534	-2.737
	3	-4.097(*)	1.154	.029	-8.013	-.181
	4	-2.601	1.088	.685	-6.291	1.089
	5	-1.242	.984	1.000	-4.581	2.097
	6	-3.121	.979	.098	-6.441	.200
	7	-2.238	.857	.466	-5.147	.670
	9	-.729	.790	1.000	-3.411	1.952
	10	1.366	.974	1.000	-1.938	4.670
	11	2.816	1.013	.317	-.621	6.253
	12	3.436	1.032	.062	-.063	6.936
	1	-6.790(*)	1.233	.000	-10.972	-2.609
	2	-5.906(*)	1.193	.000	-9.953	-1.860
10	3	-3.368	1.208	.311	-7.467	.731
	4	-1.872	1.164	.999	-5.820	2.077
	5	-.513	1.061	1.000	-4.110	3.085
	6	-2.392	1.097	.865	-6.112	1.328
	7	-1.509	.999	1.000	-4.897	1.879
	8	.729	.790	1.000	-1.952	3.411
	10	2.095	.825	.536	-.704	4.894
	11	3.546(*)	.934	.012	.376	6.715
	12	4.166(*)	.979	.002	.845	7.486
	1	-8.886(*)	1.254	.000	-13.138	-4.633
	2	-8.001(*)	1.247	.000	-12.233	-3.770
	3	-5.463(*)	1.285	.002	-9.823	-1.104
11	4	-3.967	1.190	.061	-8.002	.069
	5	-2.608	1.088	.679	-6.299	1.083
	6	-4.487(*)	1.115	.005	-8.269	-.704
	7	-3.604	1.065	.052	-7.218	.010
	8	-1.366	.974	1.000	-4.670	1.938
	9	-2.095	.825	.536	-4.894	.704
	11	1.450	.664	.863	-.802	3.703
	12	2.070	.753	.342	-.485	4.626
	1	-10.336(*)	1.242	.000	-14.550	-6.122

12	2	-9.452(*)	1.221	.000	-13.595	-5.309
	3	-6.913(*)	1.246	.000	-11.141	-2.686
	4	-5.417(*)	1.130	.000	-9.250	-1.584
	5	-4.058(*)	1.038	.007	-7.580	-.536
	6	-5.937(*)	1.114	.000	-9.715	-2.160
	7	-5.055(*)	1.046	.000	-8.603	-1.506
	8	-2.816	1.013	.317	-6.253	.621
	9	-3.546(*)	.934	.012	-6.715	-.376
	10	-1.450	.664	.863	-3.703	.802
	12	.620	.428	1.000	-.830	2.070
	1	-10.956(*)	1.235	.000	-15.146	-6.766
	2	-10.072(*)	1.224	.000	-14.224	-5.920
	3	-7.534(*)	1.263	.000	-11.818	-3.249
	4	-6.037(*)	1.136	.000	-9.890	-2.184
	5	-4.678(*)	1.043	.001	-8.216	-1.141
	6	-6.557(*)	1.121	.000	-10.361	-2.754
	7	-5.675(*)	1.057	.000	-9.260	-2.090
	8	-3.436	1.032	.062	-6.936	.063
	9	-4.166(*)	.979	.002	-7.486	-.845
	10	-2.070	.753	.342	-4.626	.485
	11	-.620	.428	1.000	-2.070	.830

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Manufacturing	1	56.239	.459	55.336	57.142
	2	55.340	.884	53.602	57.079
	3	54.096	.988	52.152	56.040

	4	51.814	1.152	49.548	54.080
	5	48.979	1.214	46.590	51.367
	6	49.670	1.245	47.221	52.120
	7	49.048	1.311	46.470	51.626
	8	46.074	1.376	43.369	48.780
	9	47.734	1.351	45.076	50.392
	10	46.904	1.348	44.252	49.557
	11	46.074	1.332	43.454	48.695
	12	45.176	1.329	42.561	47.790
Services - Financial, Business, Personal	1	56.740	.890	54.989	58.491
	2	58.560	1.714	55.189	61.931
	3	54.660	1.916	50.891	58.429
	4	53.100	2.234	48.706	57.494
	5	52.060	2.355	47.428	56.692
	6	52.580	2.415	47.830	57.330
	7	52.060	2.541	47.061	57.059
	8	49.720	2.667	44.473	54.967
	9	49.980	2.620	44.826	55.134
	10	48.420	2.615	43.276	53.564
	11	46.080	2.583	40.999	51.161
	12	46.080	2.578	41.009	51.151
Transportation & Utilities	1	56.204	.899	54.435	57.973
	2	54.347	1.731	50.942	57.752
	3	50.898	1.936	47.090	54.705
	4	47.714	2.257	43.275	52.153
	5	47.714	2.378	43.036	52.393
	6	50.898	2.439	46.100	55.696
	7	48.510	2.567	43.460	53.560
	8	48.510	2.694	43.210	53.810
	9	46.388	2.647	41.182	51.594
	10	45.857	2.641	40.661	51.053
	11	44.265	2.609	39.132	49.398

Whole and Retail Trade	12	43.204	2.604	38.082	48.326
	1	56.480	.890	54.729	58.231
	2	53.880	1.714	50.509	57.251
	3	52.320	1.916	48.551	56.089
	4	53.360	2.234	48.966	57.754
	5	51.800	2.355	47.168	56.432
	6	54.920	2.415	50.170	59.670
	7	54.920	2.541	49.921	59.919
	8	51.280	2.667	46.033	56.527
	9	54.400	2.620	49.246	59.554
	10	48.940	2.615	43.796	54.084
	11	47.900	2.583	42.819	52.981
	12	47.380	2.578	42.309	52.451

### ***General Linear Model of PSIC for Total CSR***

#### **Between-Subjects Factors**

	Value Label	N
PSIC Categories	1 Manufacturing	188
	2 Services - Financial, Business, Personal	50
	3 Transportation & Utilities	49
	4 Whole and Retail Trade	50

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	39397.613	11	3581.601	5.820	.000	.017	1.000
	Greenhouse-Geisser	39397.613	4.583	8596.082	5.820	.000	.017	.991
	Huynh-Feldt	39397.613	4.697	8388.006	5.820	.000	.017	.992
	Lower-bound	39397.613	1.000	39397.613	5.820	.016	.017	.672
year * psic	Sphericity Assumed	22270.792	33	674.872	1.097	.323	.010	.944
	Greenhouse-Geisser	22270.792	13.750	1619.739	1.097	.356	.010	.694
	Huynh-Feldt	22270.792	14.091	1580.532	1.097	.355	.010	.703
	Lower-bound	22270.792	3.000	7423.597	1.097	.351	.010	.296
Error(year)	Sphericity Assumed	2254126.881	3663	615.377				
	Greenhouse-Geisser	2254126.881	1526.207	1476.947				
	Huynh-Feldt	2254126.881	1564.067	1441.196				
	Lower-bound	2254126.881	333.000	6769.150				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15717.850	1	15717.850	6.312	.012	.019	.707
	Quadratic	18802.669	1	18802.669	14.944	.000	.043	.971
	Cubic	1425.288	1	1425.288	2.063	.152	.006	.299
year * psic	Linear	1986.980	3	662.327	.266	.850	.002	.101
	Quadratic	7440.542	3	2480.181	1.971	.118	.017	.506
	Cubic	1346.262	3	448.754	.650	.584	.006	.186
Error(year)	Linear	829259.027	333	2490.267				
	Quadratic	418996.313	333	1258.247				
	Cubic	230034.125	333	690.793				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
psic	43616.967	3	14538.989	.758	.518	.007	.212
Error	6387567.652	333	19181.885				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. PSIC Categories

#### Estimates

Measure: MEASURE\_1

PSIC	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Manufacturing	302.377	2.916	296.641	308.113
Services - Financial, Business, Personal	304.045	5.654	292.923	315.167
Transportation & Utilities	294.061	5.712	282.826	305.297
Whole and Retail Trade	297.915	5.654	286.793	309.037

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) PSIC Categories	(J) PSIC Categories	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
Manufacturing	Services - Financial, Business, Personal	-1.668	6.362	1.000	-18.506	15.170
	Transportation & Utilities	8.316	6.413	.729	-8.657	25.289
	Whole and Retail Trade	4.462	6.362	.981	-12.376	21.300
Services - Financial, Business, Personal	Manufacturing	1.668	6.362	1.000	-15.170	18.506
	Transportation & Utilities	9.984	8.037	.766	-11.288	31.256
	Whole and Retail Trade	6.130	7.996	.970	-15.034	27.294
Transportation & Utilities	Manufacturing	-8.316	6.413	.729	-25.289	8.657
	Services - Financial, Business, Personal	-9.984	8.037	.766	-31.256	11.288
	Whole and Retail Trade	-3.854	8.037	.998	-25.126	17.418
Whole and Retail Trade	Manufacturing	-4.462	6.362	.981	-21.300	12.376
	Services - Financial, Business, Personal	-6.130	7.996	.970	-27.294	15.034
	Transportation & Utilities	3.854	8.037	.998	-17.418	25.126

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3634.747	3	1211.582	.758	.518	.007	.212
Error	532297.304	333	1598.490				

The F tests the effect of PSIC. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	299.870	2.463	295.025	304.716
2	301.285	2.691	295.990	306.579
3	301.088	2.886	295.410	306.765
4	300.896	3.029	294.938	306.853
5	301.263	3.005	295.352	307.174
6	302.443	2.907	296.726	308.161
7	304.527	3.113	298.404	310.650
8	301.942	3.192	295.664	308.221
9	299.596	3.136	293.426	305.766
10	298.026	3.048	292.031	304.020
11	292.545	3.111	286.425	298.665
12	291.715	3.104	285.609	297.821

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.414	1.425	1.000	-6.247	3.419
	3	-1.217	1.764	1.000	-7.202	4.768
	4	-1.025	2.273	1.000	-8.734	6.684
	5	-1.393	2.411	1.000	-9.570	6.784
	6	-2.573	2.555	1.000	-11.241	6.095
	7	-4.657	2.714	.998	-13.862	4.549
	8	-2.072	2.743	1.000	-11.375	7.232
	9	.274	2.662	1.000	-8.756	9.304

2	10	1.845	2.638	1.000	-7.105	10.795
	11	7.326	2.828	.485	-2.266	16.917
	12	8.156	2.835	.246	-1.461	17.772
	1	1.414	1.425	1.000	-3.419	6.247
	3	.197	1.353	1.000	-4.392	4.785
	4	.389	2.012	1.000	-6.435	7.213
	5	.021	2.241	1.000	-7.582	7.625
	6	-1.159	2.451	1.000	-9.474	7.157
	7	-3.243	2.613	1.000	-12.107	5.622
	8	-.658	2.572	1.000	-9.384	8.068
	9	1.688	2.590	1.000	-7.097	10.473
	10	3.259	2.578	1.000	-5.487	12.005
3	11	8.740	2.716	.090	-.475	17.954
	12	9.570(*)	2.733	.034	.298	18.841
	1	1.217	1.764	1.000	-4.768	7.202
	2	-.197	1.353	1.000	-4.785	4.392
	4	.192	1.831	1.000	-6.019	6.403
	5	-.175	2.236	1.000	-7.761	7.410
	6	-1.355	2.432	1.000	-9.604	6.893
	7	-3.439	2.637	1.000	-12.385	5.506
	8	-.854	2.601	1.000	-9.678	7.969
	9	1.492	2.610	1.000	-7.363	10.346
	10	3.062	2.616	1.000	-5.813	11.937
	11	8.543	2.729	.118	-.715	17.800
4	12	9.373(*)	2.732	.044	.104	18.642
	1	1.025	2.273	1.000	-6.684	8.734
	2	-.389	2.012	1.000	-7.213	6.435
	3	-.192	1.831	1.000	-6.403	6.019
	5	-.368	1.511	1.000	-5.495	4.759
	6	-1.548	2.033	1.000	-8.446	5.350
	7	-3.632	2.227	.999	-11.185	3.922
	8	-1.047	2.296	1.000	-8.837	6.743
	9	1.299	2.393	1.000	-6.817	9.416

5	10	2.870	2.446	1.000	-5.426	11.166
	11	8.351	2.595	.089	-.452	17.153
	12	9.181(*)	2.524	.021	.617	17.744
	1	1.393	2.411	1.000	-6.784	9.570
	2	-.021	2.241	1.000	-7.625	7.582
	3	.175	2.236	1.000	-7.410	7.761
	4	.368	1.511	1.000	-4.759	5.495
	6	-1.180	1.713	1.000	-6.990	4.630
	7	-3.264	2.003	.999	-10.058	3.531
	8	-.679	2.187	1.000	-8.096	6.738
	9	1.667	2.241	1.000	-5.937	9.270
	10	3.238	2.334	1.000	-4.679	11.154
6	11	8.718(*)	2.518	.039	.175	17.261
	12	9.548(*)	2.479	.009	1.139	17.957
	1	2.573	2.555	1.000	-6.095	11.241
	2	1.159	2.451	1.000	-7.157	9.474
	3	1.355	2.432	1.000	-6.893	9.604
	4	1.548	2.033	1.000	-5.350	8.446
	5	1.180	1.713	1.000	-4.630	6.990
	7	-2.084	1.434	1.000	-6.950	2.782
	8	.501	1.815	1.000	-5.657	6.659
	9	2.847	1.982	1.000	-3.875	9.569
	10	4.418	2.153	.937	-2.884	11.720
	11	9.898(*)	2.415	.003	1.706	18.091
7	12	10.728(*)	2.390	.001	2.622	18.834
	1	4.657	2.714	.998	-4.549	13.862
	2	3.243	2.613	1.000	-5.622	12.107
	3	3.439	2.637	1.000	-5.506	12.385
	4	3.632	2.227	.999	-3.922	11.185
	5	3.264	2.003	.999	-3.531	10.058
	6	2.084	1.434	1.000	-2.782	6.950
	8	2.585	1.562	.999	-2.715	7.885
	9	4.931	1.774	.316	-1.086	10.948

8	10	6.502	2.030	.094	-.385	13.388
	11	11.982(*)	2.376	.000	3.921	20.044
	12	12.812(*)	2.353	.000	4.829	20.795
	1	2.072	2.743	1.000	-7.232	11.375
	2	.658	2.572	1.000	-8.068	9.384
	3	.854	2.601	1.000	-7.969	9.678
	4	1.047	2.296	1.000	-6.743	8.837
	5	.679	2.187	1.000	-6.738	8.096
	6	-.501	1.815	1.000	-6.659	5.657
	7	-2.585	1.562	.999	-7.885	2.715
	9	2.346	1.265	.988	-1.945	6.637
	10	3.917	1.751	.824	-2.024	9.858
9	11	9.397(*)	2.047	.000	2.453	16.342
	12	10.227(*)	2.160	.000	2.899	17.555
	1	-.274	2.662	1.000	-9.304	8.756
	2	-1.688	2.590	1.000	-10.473	7.097
	3	-1.492	2.610	1.000	-10.346	7.363
	4	-1.299	2.393	1.000	-9.416	6.817
	5	-1.667	2.241	1.000	-9.270	5.937
	6	-2.847	1.982	1.000	-9.569	3.875
	7	-4.931	1.774	.316	-10.948	1.086
	8	-2.346	1.265	.988	-6.637	1.945
	10	1.571	1.501	1.000	-3.523	6.664
	11	7.051(*)	1.869	.013	.711	13.392
10	12	7.881(*)	1.997	.006	1.108	14.654
	1	-1.845	2.638	1.000	-10.795	7.105
	2	-3.259	2.578	1.000	-12.005	5.487
	3	-3.062	2.616	1.000	-11.937	5.813
	4	-2.870	2.446	1.000	-11.166	5.426
	5	-3.238	2.334	1.000	-11.154	4.679
	6	-4.418	2.153	.937	-11.720	2.884
	7	-6.502	2.030	.094	-13.388	.385
	8	-3.917	1.751	.824	-9.858	2.024

11	9	-1.571	1.501	1.000	-6.664	3.523
	11	5.481(*)	1.279	.002	1.141	9.820
	12	6.311(*)	1.527	.003	1.131	11.490
	1	-7.326	2.828	.485	-16.917	2.266
	2	-8.740	2.716	.090	-17.954	.475
	3	-8.543	2.729	.118	-17.800	.715
	4	-8.351	2.595	.089	-17.153	.452
	5	-8.718(*)	2.518	.039	-17.261	-.175
	6	-9.898(*)	2.415	.003	-18.091	-1.706
	7	-11.982(*)	2.376	.000	-20.044	-3.921
	8	-9.397(*)	2.047	.000	-16.342	-2.453
12	9	-7.051(*)	1.869	.013	-13.392	-.711
	10	-5.481(*)	1.279	.002	-9.820	-1.141
	12	.830	1.110	1.000	-2.936	4.596
	1	-8.156	2.835	.246	-17.772	1.461
	2	-9.570(*)	2.733	.034	-18.841	-.298
	3	-9.373(*)	2.732	.044	-18.642	-.104
	4	-9.181(*)	2.524	.021	-17.744	-.617
	5	-9.548(*)	2.479	.009	-17.957	-1.139
	6	-10.728(*)	2.390	.001	-18.834	-2.622
	7	-12.812(*)	2.353	.000	-20.795	-4.829
	8	-10.227(*)	2.160	.000	-17.555	-2.899
	9	-7.881(*)	1.997	.006	-14.654	-1.108
	10	-6.311(*)	1.527	.003	-11.490	-1.131
	11	-.830	1.110	1.000	-4.596	2.936

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. PSIC \* year

Measure: MEASURE\_1

PSIC	year	Mean	Std. Error	95% Confidence Interval
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				Lower Bound	Upper Bound
Manufacturing	1	301.580	2.803	296.066	307.094
	2	305.596	3.063	299.571	311.620
	3	306.500	3.284	300.040	312.960
	4	303.984	3.446	297.205	310.763
	5	302.479	3.419	295.752	309.205
	6	302.521	3.307	296.015	309.027
	7	304.074	3.542	297.107	311.042
	8	300.766	3.632	293.622	307.910
	9	304.149	3.569	297.128	311.170
	10	301.824	3.468	295.003	308.646
	11	297.521	3.540	290.557	304.485
	12	297.532	3.532	290.584	304.480
Services - Financial, Business, Personal	1	303.700	5.435	293.008	314.392
	2	305.760	5.938	294.078	317.442
	3	306.380	6.368	293.853	318.907
	4	305.500	6.683	292.354	318.646
	5	305.520	6.630	292.477	318.563
	6	300.680	6.413	288.064	313.296
	7	304.420	6.868	290.909	317.931
	8	305.280	7.042	291.427	319.133
	9	305.660	6.921	292.046	319.274
	10	305.880	6.724	292.652	319.108
	11	300.480	6.865	286.977	313.983
	12	299.280	6.849	285.808	312.752
Transportation & Utilities	1	295.102	5.490	284.302	305.902
	2	296.122	5.999	284.322	307.923
	3	292.551	6.433	279.897	305.205
	4	294.898	6.751	281.619	308.177
	5	294.694	6.698	281.519	307.869
	6	301.571	6.478	288.828	314.315
	7	303.694	6.938	290.046	317.342

Whole and Retail Trade	8	300.143	7.114	286.149	314.137
	9	290.796	6.991	277.044	304.548
	10	292.878	6.793	279.515	306.240
	11	283.898	6.934	270.257	297.538
	12	282.388	6.918	268.779	295.997
	1	299.100	5.435	288.408	309.792
	2	297.660	5.938	285.978	309.342
	3	298.920	6.368	286.393	311.447
	4	299.200	6.683	286.054	312.346
	5	302.360	6.630	289.317	315.403
	6	305.000	6.413	292.384	317.616
	7	305.920	6.868	292.409	319.431
	8	301.580	7.042	287.727	315.433
	9	297.780	6.921	284.166	311.394
	10	291.520	6.724	278.292	304.748
	11	288.280	6.865	274.777	301.783
	12	287.660	6.849	274.188	301.132



## APPENDIX F

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Diversity of Corporate Leaders

#### *General Linear Model of Level of Diversity for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Level of Diversity	1	Low	119
	2	Medium	146
	3	High	88

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	26907.562	11	2446.142	24.597	.000	.066	1.000
	Greenhouse-Geisser	26907.562	4.231	6360.287	24.597	.000	.066	1.000
	Huynh-Feldt	26907.562	4.313	6238.363	24.597	.000	.066	1.000
	Lower-bound	26907.562	1.000	26907.562	24.597	.000	.066	.999
year * Divlevel	Sphericity Assumed	8797.712	22	399.896	4.021	.000	.022	1.000
	Greenhouse-Geisser	8797.712	8.461	1039.782	4.021	.000	.022	.995
	Huynh-Feldt	8797.712	8.626	1019.849	4.021	.000	.022	.995
	Lower-bound	8797.712	2.000	4398.856	4.021	.019	.022	.716
Error(year)	Sphericity Assumed	382873.386	3850	99.448				
	Greenhouse-Geisser	382873.386	1480.695	258.577				
	Huynh-Feldt	382873.386	1509.634	253.620				

Lower-bound	382873.386	350.000	1093.924			
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	23106.123	1	23106.123	54.063	.000	.134	1.000
	Quadratic	554.616	1	554.616	3.385	.067	.010	.450
	Cubic	2225.053	1	2225.053	21.486	.000	.058	.996
year * Divlevel	Linear	6508.550	2	3254.275	7.614	.001	.042	.945
	Quadratic	22.714	2	11.357	.069	.933	.000	.060
	Cubic	645.434	2	322.717	3.116	.046	.017	.598
Error(year)	Linear	149586.735	350	427.391				
	Quadratic	57337.975	350	163.823				
	Cubic	36245.512	350	103.559				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Divlevel	118057.988	2	59028.994	31.064	.000	.151	1.000
Error	665072.836	350	1900.208				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Diversity

### Estimates

Measure: MEASURE\_1

Level of Diversity	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	44.265	1.154	41.997	46.534
Medium	48.910	1.041	46.862	50.958
High	58.116	1.341	55.478	60.755

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Level of Diversity	(J) Level of Diversity				Upper Bound	Lower Bound
Low	Medium	-4.644(*)	1.554	.009	-8.373	-.916
	High	-13.851(*)	1.769	.000	-18.096	-9.606
Medium	Low	4.644(*)	1.554	.009	.916	8.373
	High	-9.207(*)	1.698	.000	-13.281	-5.132
High	Low	13.851(*)	1.769	.000	9.606	18.096
	Medium	9.207(*)	1.698	.000	5.132	13.281

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	9838.166	2	4919.083	31.064	.000	.151	1.000

Error	55422.736	350	158.351			
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The F tests the effect of Level of Diversity. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.124	.848	50.456	53.792
2	53.483	.878	51.756	55.210
3	54.637	.971	52.727	56.548
4	52.403	.903	50.626	54.180
5	52.418	.892	50.664	54.172
6	50.788	.835	49.145	52.430
7	50.925	.858	49.237	52.614
8	48.964	.838	47.316	50.612
9	48.344	.854	46.665	50.023
10	47.149	.782	45.611	48.687
11	46.651	.786	45.105	48.196
12	47.281	.846	45.616	48.945

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.359	.463	.211	-2.929	.212
	3	-2.513(*)	.659	.011	-4.746	-.280

2	4	-.279	.781	1.000	-2.928	2.370
	5	-.294	.867	1.000	-3.234	2.646
	6	1.337	.875	1.000	-1.631	4.304
	7	1.199	.883	1.000	-1.794	4.191
	8	3.160(*)	.885	.026	.160	6.159
	9	3.780(*)	.886	.002	.776	6.784
	10	4.975(*)	.900	.000	1.925	8.026
	11	5.473(*)	.909	.000	2.391	8.555
	12	4.844(*)	.934	.000	1.675	8.012
	1	1.359	.463	.211	-.212	2.929
	3	-1.155	.504	.777	-2.863	.553
	4	1.079	.726	1.000	-1.382	3.540
3	5	1.065	.831	1.000	-1.751	3.881
	6	2.695	.871	.132	-.260	5.650
	7	2.557	.898	.265	-.486	5.601
	8	4.518(*)	.896	.000	1.481	7.555
	9	5.139(*)	.907	.000	2.063	8.214
	10	6.334(*)	.917	.000	3.224	9.443
	11	6.832(*)	.935	.000	3.663	10.001
	12	6.202(*)	.959	.000	2.950	9.454
	1	2.513(*)	.659	.011	.280	4.746
	2	1.155	.504	.777	-.553	2.863
	4	2.234(*)	.636	.033	.077	4.391
	5	2.220	.815	.363	-.545	4.984
4	6	3.850(*)	.873	.001	.889	6.811
	7	3.712(*)	.906	.003	.642	6.783
	8	5.673(*)	.907	.000	2.599	8.747
	9	6.293(*)	.923	.000	3.165	9.422
	10	7.489(*)	.942	.000	4.294	10.683
	11	7.987(*)	.970	.000	4.699	11.274
	12	7.357(*)	1.007	.000	3.941	10.772
	1	.279	.781	1.000	-2.370	2.928
	2	-1.079	.726	1.000	-3.540	1.382

5	3	-2.234(*)	.636	.033	-4.391	-.077
	5	-.015	.592	1.000	-2.021	1.992
	6	1.616	.743	.868	-.902	4.134
	7	1.478	.785	.984	-1.184	4.139
	8	3.439(*)	.814	.002	.679	6.199
	9	4.059(*)	.821	.000	1.275	6.844
	10	5.254(*)	.837	.000	2.415	8.094
	11	5.752(*)	.869	.000	2.806	8.698
	12	5.123(*)	.915	.000	2.021	8.225
	1	.294	.867	1.000	-2.646	3.234
	2	-1.065	.831	1.000	-3.881	1.751
	3	-2.220	.815	.363	-4.984	.545
6	4	.015	.592	1.000	-1.992	2.021
	6	1.630	.589	.324	-.366	3.626
	7	1.493	.703	.902	-.892	3.877
	8	3.454(*)	.768	.001	.849	6.058
	9	4.074(*)	.828	.000	1.267	6.881
	10	5.269(*)	.826	.000	2.467	8.071
	11	5.767(*)	.834	.000	2.940	8.594
	12	5.137(*)	.855	.000	2.238	8.037
	1	-1.337	.875	1.000	-4.304	1.631
	2	-2.695	.871	.132	-5.650	.260
	3	-3.850(*)	.873	.001	-6.811	-.889
	4	-1.616	.743	.868	-4.134	.902
7	5	-1.630	.589	.324	-3.626	.366
	7	-.138	.513	1.000	-1.877	1.601
	8	1.823	.635	.248	-.328	3.975
	9	2.444(*)	.720	.050	.001	4.886
	10	3.639(*)	.766	.000	1.041	6.236
	11	4.137(*)	.768	.000	1.531	6.742
	12	3.507(*)	.758	.000	.937	6.077
	1	-1.199	.883	1.000	-4.191	1.794
	2	-2.557	.898	.265	-5.601	.486

8	3	-3.712(*)	.906	.003	-6.783	-.642
	4	-1.478	.785	.984	-4.139	1.184
	5	-1.493	.703	.902	-3.877	.892
	6	.138	.513	1.000	-1.601	1.877
	8	1.961(*)	.527	.015	.173	3.749
	9	2.581(*)	.623	.003	.468	4.695
	10	3.776(*)	.689	.000	1.441	6.112
	11	4.274(*)	.708	.000	1.872	6.677
	12	3.645(*)	.672	.000	1.365	5.925
	1	-3.160(*)	.885	.026	-6.159	-.160
	2	-4.518(*)	.896	.000	-7.555	-1.481
	3	-5.673(*)	.907	.000	-8.747	-2.599
9	4	-3.439(*)	.814	.002	-6.199	-.679
	5	-3.454(*)	.768	.001	-6.058	-.849
	6	-1.823	.635	.248	-3.975	.328
	7	-1.961(*)	.527	.015	-3.749	-.173
	9	.620	.370	.999	-.634	1.875
	10	1.815(*)	.535	.049	.002	3.629
	11	2.313(*)	.559	.003	.418	4.209
	12	1.684	.564	.182	-.229	3.596
	1	-3.780(*)	.886	.002	-6.784	-.776
	2	-5.139(*)	.907	.000	-8.214	-2.063
	3	-6.293(*)	.923	.000	-9.422	-3.165
	4	-4.059(*)	.821	.000	-6.844	-1.275
10	5	-4.074(*)	.828	.000	-6.881	-1.267
	6	-2.444(*)	.720	.050	-4.886	-.001
	7	-2.581(*)	.623	.003	-4.695	-.468
	8	-.620	.370	.999	-1.875	.634
	10	1.195	.443	.386	-.308	2.698
	11	1.693	.526	.090	-.092	3.478
	12	1.063	.547	.972	-.793	2.919
	1	-4.975(*)	.900	.000	-8.026	-1.925
	2	-6.334(*)	.917	.000	-9.443	-3.224

11	3	-7.489(*)	.942	.000	-10.683	-4.294
	4	-5.254(*)	.837	.000	-8.094	-2.415
	5	-5.269(*)	.826	.000	-8.071	-2.467
	6	-3.639(*)	.766	.000	-6.236	-1.041
	7	-3.776(*)	.689	.000	-6.112	-1.441
	8	-1.815(*)	.535	.049	-3.629	-.002
	9	-1.195	.443	.386	-2.698	.308
	11	.498	.320	1.000	-.586	1.582
	12	-.132	.500	1.000	-1.826	1.563
	1	-5.473(*)	.909	.000	-8.555	-2.391
	2	-6.832(*)	.935	.000	-10.001	-3.663
	3	-7.987(*)	.970	.000	-11.274	-4.699
12	4	-5.752(*)	.869	.000	-8.698	-2.806
	5	-5.767(*)	.834	.000	-8.594	-2.940
	6	-4.137(*)	.768	.000	-6.742	-1.531
	7	-4.274(*)	.708	.000	-6.677	-1.872
	8	-2.313(*)	.559	.003	-4.209	-.418
	9	-1.693	.526	.090	-3.478	.092
	10	-.498	.320	1.000	-1.582	.586
	12	-.630	.377	.999	-1.909	.650
	1	-4.844(*)	.934	.000	-8.012	-1.675
	2	-6.202(*)	.959	.000	-9.454	-2.950
	3	-7.357(*)	1.007	.000	-10.772	-3.941
	4	-5.123(*)	.915	.000	-8.225	-2.021
	5	-5.137(*)	.855	.000	-8.037	-2.238
	6	-3.507(*)	.758	.000	-6.077	-.937
	7	-3.645(*)	.672	.000	-5.925	-1.365
	8	-1.684	.564	.182	-3.596	.229
	9	-1.063	.547	.972	-2.919	.793
	10	.132	.500	1.000	-1.563	1.826
	11	.630	.377	.999	-.650	1.909

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.



### 3. Level of Diversity \* year

Measure: MEASURE\_1

Level of Diversity	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	45.966	1.430	43.155	48.778
	2	45.739	1.480	42.828	48.651
	3	45.798	1.637	42.578	49.019
	4	45.874	1.523	42.879	48.869
	5	45.731	1.503	42.775	48.688
	6	45.563	1.407	42.795	48.331
	7	44.739	1.447	41.894	47.585
	8	42.773	1.412	39.995	45.551
	9	42.487	1.439	39.658	45.317
	10	42.487	1.318	39.895	45.080
	11	42.126	1.325	39.521	44.731
	12	41.899	1.426	39.094	44.705
Medium	1	49.281	1.291	46.743	51.819
	2	50.822	1.336	48.194	53.450
	3	51.568	1.478	48.661	54.476
	4	50.404	1.375	47.700	53.108
	5	49.466	1.357	46.797	52.135
	6	48.925	1.271	46.426	51.424
	7	49.548	1.306	46.979	52.117
	8	48.870	1.275	46.362	51.378
	9	47.795	1.299	45.240	50.349
	10	46.562	1.190	44.221	48.902
	11	46.349	1.196	43.997	48.701
	12	47.329	1.288	44.796	49.862
High	1	61.125	1.662	57.856	64.394
	2	63.886	1.721	60.501	67.272

3	66.545	1.904	62.801	70.290
4	60.932	1.771	57.449	64.415
5	62.057	1.748	58.619	65.495
6	57.875	1.637	54.656	61.094
7	58.489	1.683	55.179	61.798
8	55.250	1.642	52.020	58.480
9	54.750	1.673	51.459	58.041
10	52.398	1.533	49.383	55.413
11	51.477	1.540	48.448	54.507
12	52.614	1.659	49.351	55.876

### ***General Linear Model of Level of Diversity for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
Level of Diversity	1	Low	119
	2	Medium	146
	3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	11690.612	11	1062.783	9.741	.000	.027	1.000
	Greenhouse-Geisser	11690.612	3.885	3009.272	9.741	.000	.027	1.000
	Huynh-Feldt	11690.612	3.956	2954.889	9.741	.000	.027	1.000
	Lower-bound	11690.612	1.000	11690.612	9.741	.002	.027	.875
year * Divlevel	Sphericity Assumed	1131.983	22	51.454	.472	.982	.003	.398
	Greenhouse-Geisser	1131.983	7.770	145.691	.472	.872	.003	.220

Error(year)	Huynh-Feldt	1131.983	7.913	143.059	.472	.875	.003	.222
	Lower-bound	1131.983	2.000	565.991	.472	.624	.003	.127
	Sphericity Assumed	420037.220	3850	109.101				
	Greenhouse-Geisser	420037.220	1359.702	308.919				
	Huynh-Feldt	420037.220	1384.727	303.336				
	Lower-bound	420037.220	350.000	1200.106				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6371.567	1	6371.567	12.612	.000	.035	.943
	Quadratic	4556.037	1	4556.037	23.097	.000	.062	.998
	Cubic	14.681	1	14.681	.122	.727	.000	.064
year * Divlevel	Linear	176.534	2	88.267	.175	.840	.001	.077
	Quadratic	234.087	2	117.043	.593	.553	.003	.149
	Cubic	201.251	2	100.626	.839	.433	.005	.194
Error(year)	Linear	176822.981	350	505.209				
	Quadratic	69038.595	350	197.253				
	Cubic	41976.771	350	119.934				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Divlevel	17394.150	2	8697.075	4.250	.015	.024	.741
Error	716308.488	350	2046.596				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Diversity

#### Estimates

Measure: MEASURE\_1

Level of Diversity	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.174	1.197	45.819	50.528
Medium	49.309	1.081	47.183	51.434
High	53.345	1.392	50.607	56.083

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Diversity	(J) Level of Diversity	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.135	1.613	.861	-5.005	2.735
	High	-5.171(*)	1.836	.015	-9.576	-.766
Medium	Low	1.135	1.613	.861	-2.735	5.005
	High	-4.036	1.762	.066	-8.264	.193
High	Low	5.171(*)	1.836	.015	.766	9.576
	Medium	4.036	1.762	.066	-.193	8.264

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1449.513	2	724.756	4.250	.015	.024	.741
Error	59692.374	350	170.550				

The F tests the effect of Level of Diversity. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	46.018	.656	44.728	47.308
2	48.198	.746	46.731	49.664
3	48.959	.785	47.416	50.503
4	50.343	.830	48.710	51.976
5	51.254	.873	49.537	52.972
6	50.293	.858	48.605	51.981
7	51.264	.928	49.438	53.090
8	51.901	1.004	49.926	53.876
9	51.716	.987	49.775	53.657
10	52.093	.991	50.144	54.041
11	50.935	.984	49.001	52.870
12	50.333	1.009	48.349	52.317

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.179(*)	.511	.002	-3.913	-.446
	3	-2.941(*)	.602	.000	-4.983	-.899
	4	-4.324(*)	.789	.000	-6.999	-1.650
	5	-5.236(*)	.796	.000	-7.934	-2.538
	6	-4.275(*)	.790	.000	-6.953	-1.597
	7	-5.246(*)	.848	.000	-8.122	-2.370
	8	-5.883(*)	.945	.000	-9.088	-2.677
	9	-5.698(*)	.933	.000	-8.863	-2.533
	10	-6.074(*)	.997	.000	-9.455	-2.693
	11	-4.917(*)	1.007	.000	-8.331	-1.503
	12	-4.315(*)	1.032	.002	-7.814	-.816
2	1	2.179(*)	.511	.002	.446	3.913
	3	-.762	.473	.999	-2.365	.841
	4	-2.145	.725	.196	-4.603	.313
	5	-3.057(*)	.764	.005	-5.648	-.466
	6	-2.096	.782	.401	-4.748	.557
	7	-3.067(*)	.844	.021	-5.928	-.205
	8	-3.703(*)	.937	.006	-6.882	-.525
	9	-3.519(*)	.933	.013	-6.682	-.355
	10	-3.895(*)	.990	.007	-7.251	-.539
	11	-2.738	1.004	.360	-6.143	.667
	12	-2.136	1.031	.928	-5.631	1.359
3	1	2.941(*)	.602	.000	.899	4.983
	2	.762	.473	.999	-.841	2.365
	4	-1.384	.588	.721	-3.377	.610
	5	-2.295	.721	.099	-4.739	.149
	6	-1.334	.776	.997	-3.965	1.297
	7	-2.305	.815	.279	-5.068	.458

4	8	-2.942	.899	.074	-5.989	.105
	9	-2.757	.883	.121	-5.753	.238
	10	-3.133(*)	.922	.049	-6.259	-.008
	11	-1.976	.938	.910	-5.157	1.205
	12	-1.374	.963	1.000	-4.640	1.892
	1	4.324(*)	.789	.000	1.650	6.999
	2	2.145	.725	.196	-.313	4.603
	3	1.384	.588	.721	-.610	3.377
	5	-.911	.543	.999	-2.753	.930
	6	.049	.756	1.000	-2.515	2.614
	7	-.921	.802	1.000	-3.641	1.798
	8	-1.558	.891	.996	-4.581	1.464
5	9	-1.374	.892	1.000	-4.398	1.651
	10	-1.750	.955	.990	-4.989	1.489
	11	-.593	.967	1.000	-3.872	2.687
	12	.009	.993	1.000	-3.357	3.376
	1	5.236(*)	.796	.000	2.538	7.934
	2	3.057(*)	.764	.005	.466	5.648
	3	2.295	.721	.099	-.149	4.739
	4	.911	.543	.999	-.930	2.753
	6	.961	.629	1.000	-1.170	3.092
	7	-.010	.741	1.000	-2.521	2.501
	8	-.647	.884	1.000	-3.643	2.350
	9	-.462	.876	1.000	-3.433	2.508
6	10	-.838	.978	1.000	-4.155	2.478
	11	.319	1.006	1.000	-3.092	3.730
	12	.921	1.044	1.000	-2.617	4.459
	1	4.275(*)	.790	.000	1.597	6.953
	2	2.096	.782	.401	-.557	4.748
	3	1.334	.776	.997	-1.297	3.965
	4	-.049	.756	1.000	-2.614	2.515
	5	-.961	.629	1.000	-3.092	1.170
	7	-.971	.451	.882	-2.499	.557

7	8	-1.608	.648	.594	-3.805	.590
	9	-1.423	.696	.939	-3.782	.936
	10	-1.799	.822	.860	-4.588	.989
	11	-.642	.877	1.000	-3.616	2.332
	12	-.040	.909	1.000	-3.123	3.043
	1	5.246(*)	.848	.000	2.370	8.122
	2	3.067(*)	.844	.021	.205	5.928
	3	2.305	.815	.279	-.458	5.068
	4	.921	.802	1.000	-1.798	3.641
	5	.010	.741	1.000	-2.501	2.521
	6	.971	.451	.882	-.557	2.499
	8	-.637	.509	1.000	-2.363	1.089
8	9	-.452	.595	1.000	-2.471	1.567
	10	-.828	.757	1.000	-3.394	1.737
	11	.329	.823	1.000	-2.461	3.119
	12	.931	.870	1.000	-2.019	3.880
	1	5.883(*)	.945	.000	2.677	9.088
	2	3.703(*)	.937	.006	.525	6.882
	3	2.942	.899	.074	-.105	5.989
	4	1.558	.891	.996	-1.464	4.581
	5	.647	.884	1.000	-2.350	3.643
	6	1.608	.648	.594	-.590	3.805
	7	.637	.509	1.000	-1.089	2.363
	9	.185	.408	1.000	-1.199	1.569
9	10	-.192	.623	1.000	-2.303	1.920
	11	.966	.696	1.000	-1.396	3.327
	12	1.568	.752	.921	-.982	4.117
	1	5.698(*)	.933	.000	2.533	8.863
	2	3.519(*)	.933	.013	.355	6.682
	3	2.757	.883	.121	-.238	5.753
	4	1.374	.892	1.000	-1.651	4.398
	5	.462	.876	1.000	-2.508	3.433
	6	1.423	.696	.939	-.936	3.782



10	7	.452	.595	1.000	-1.567	2.471
	8	-.185	.408	1.000	-1.569	1.199
	10	-.376	.524	1.000	-2.152	1.400
	11	.781	.625	1.000	-1.338	2.900
	12	1.383	.689	.953	-.952	3.718
	1	6.074(*)	.997	.000	2.693	9.455
	2	3.895(*)	.990	.007	.539	7.251
	3	3.133(*)	.922	.049	.008	6.259
	4	1.750	.955	.990	-1.489	4.989
	5	.838	.978	1.000	-2.478	4.155
	6	1.799	.822	.860	-.989	4.588
	7	.828	.757	1.000	-1.737	3.394
11	8	.192	.623	1.000	-1.920	2.303
	9	.376	.524	1.000	-1.400	2.152
	11	1.157	.376	.139	-.119	2.433
	12	1.759(*)	.480	.019	.132	3.387
	1	4.917(*)	1.007	.000	1.503	8.331
	2	2.738	1.004	.360	-.667	6.143
	3	1.976	.938	.910	-1.205	5.157
	4	.593	.967	1.000	-2.687	3.872
	5	-.319	1.006	1.000	-3.730	3.092
	6	.642	.877	1.000	-2.332	3.616
	7	-.329	.823	1.000	-3.119	2.461
	8	-.966	.696	1.000	-3.327	1.396
12	9	-.781	.625	1.000	-2.900	1.338
	10	-1.157	.376	.139	-2.433	.119
	12	.602	.310	.972	-.447	1.651
	1	4.315(*)	1.032	.002	.816	7.814
	2	2.136	1.031	.928	-1.359	5.631
	3	1.374	.963	1.000	-1.892	4.640
	4	-.009	.993	1.000	-3.376	3.357
	5	-.921	1.044	1.000	-4.459	2.617
	6	.040	.909	1.000	-3.043	3.123

7	-.931	.870	1.000	-3.880	2.019
8	-1.568	.752	.921	-4.117	.982
9	-1.383	.689	.953	-3.718	.952
10	-1.759(*)	.480	.019	-3.387	-.132
11	-.602	.310	.972	-1.651	.447

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Diversity \* year

Measure: MEASURE\_1

Level of Diversity	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	45.025	1.106	42.851	47.200
	2	45.697	1.257	43.226	48.169
	3	46.908	1.323	44.305	49.510
	4	47.176	1.400	44.424	49.929
	5	48.050	1.472	45.155	50.946
	6	48.454	1.447	45.608	51.299
	7	49.395	1.565	46.317	52.473
	8	50.008	1.692	46.680	53.337
	9	49.067	1.664	45.795	52.339
	10	50.345	1.670	47.060	53.629
	11	49.143	1.658	45.881	52.404
	12	48.815	1.700	45.471	52.159
Medium	1	44.575	.998	42.612	46.539
	2	46.986	1.135	44.755	49.218
	3	47.425	1.194	45.075	49.774
	4	49.397	1.264	46.912	51.883
	5	50.712	1.329	48.098	53.326
	6	49.233	1.306	46.664	51.802
	7	50.000	1.413	47.221	52.779

High	8	51.377	1.528	48.372	54.382
	9	51.048	1.502	48.094	54.002
	10	51.377	1.508	48.411	54.342
	11	50.390	1.497	47.446	53.335
	12	49.185	1.535	46.166	52.204
	1	48.455	1.286	45.926	50.983
	2	51.909	1.461	49.035	54.783
	3	52.545	1.539	49.519	55.571
	4	54.455	1.628	51.253	57.656
	5	55.000	1.712	51.633	58.367
	6	53.193	1.682	49.884	56.502
	7	54.398	1.820	50.819	57.977
	8	54.318	1.968	50.447	58.189
	9	55.034	1.935	51.229	58.839
	10	54.557	1.942	50.737	58.376
	11	53.273	1.928	49.480	57.065
	12	53.000	1.977	49.111	56.889

### ***General Linear Model of Level of Diversity for Environment***

#### **Between-Subjects Factors**

		Value Label	N
Level of Diversity	1	Low	119
	2	Medium	146
	3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2664.990	11	242.272	2.908	.001	.008	.987
	Greenhouse-Geisser	2664.990	5.012	531.738	2.908	.013	.008	.854
	Huynh-Feldt	2664.990	5.122	520.258	2.908	.012	.008	.859
	Lower-bound	2664.990	1.000	2664.990	2.908	.089	.008	.398
year * Divlevel	Sphericity Assumed	2866.375	22	130.290	1.564	.045	.009	.966
	Greenhouse-Geisser	2866.375	10.024	285.960	1.564	.111	.009	.779
	Huynh-Feldt	2866.375	10.245	279.786	1.564	.109	.009	.786
	Lower-bound	2866.375	2.000	1433.187	1.564	.211	.009	.331
Error(year)	Sphericity Assumed	320793.937	3850	83.323				
	Greenhouse-Geisser	320793.937	1754.146	182.878				
	Huynh-Feldt	320793.937	1792.855	178.929				
	Lower-bound	320793.937	350.000	916.554				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	116.234	1	116.234	.396	.530	.001	.096
	Quadratic	.240	1	.240	.001	.970	.000	.050
	Cubic	667.833	1	667.833	5.655	.018	.016	.660
year * Divlevel	Linear	1221.103	2	610.552	2.078	.127	.012	.426
	Quadratic	242.255	2	121.128	.732	.482	.004	.174
	Cubic	65.683	2	32.841	.278	.757	.002	.094
Error(year)	Linear	102824.474	350	293.784				
	Quadratic	57890.553	350	165.402				
	Cubic	41330.767	350	118.088				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Divlevel	154.171	2	77.085	.031	.969	.000	.055
Error	870903.143	350	2488.295				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Diversity

#### Estimates

Measure: MEASURE\_1

Level of Diversity	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.088	1.320	47.491	52.684
Medium	49.937	1.192	47.593	52.281
High	50.420	1.535	47.400	53.439

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Diversity (J) Level of Diversity		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.150	1.778	1.000	-4.116	4.417
	High	-.332	2.025	.998	-5.189	4.525
Medium	Low	-.150	1.778	1.000	-4.417	4.116

High	High	-.482	1.943	.992	-5.145	4.180
	Low	.332	2.025	.998	-4.525	5.189
	Medium	.482	1.943	.992	-4.180	5.145

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	12.848	2	6.424	.031	.969	.000	.055
Error	72575.262	350	207.358				

The F tests the effect of Level of Diversity. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.940	.772	49.422	52.459
2	49.733	.845	48.071	51.395
3	49.235	.900	47.464	51.005
4	48.744	.931	46.913	50.575
5	49.445	.899	47.678	51.212
6	50.777	.922	48.963	52.590
7	51.286	.983	49.351	53.220
8	50.947	.986	49.008	52.885
9	50.383	.957	48.501	52.264
10	50.362	.936	48.520	52.203

11	49.162	.961	47.271	51.053
12	50.765	.877	49.039	52.490

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.207	.546	.842	-.643	3.057
	3	1.706	.653	.464	-.509	3.921
	4	2.197	.713	.138	-.222	4.616
	5	1.496	.737	.946	-1.004	3.996
	6	.164	.740	1.000	-2.344	2.672
	7	-.345	.768	1.000	-2.949	2.259
	8	-.006	.797	1.000	-2.710	2.697
	9	.558	.836	1.000	-2.275	3.391
	10	.579	.775	1.000	-2.049	3.207
	11	1.779	.855	.923	-1.120	4.677
	12	.176	.834	1.000	-2.651	3.003
2	1	-1.207	.546	.842	-3.057	.643
	3	.499	.455	1.000	-1.043	2.041
	4	.990	.603	.999	-1.057	3.036
	5	.289	.670	1.000	-1.985	2.562
	6	-1.043	.754	1.000	-3.600	1.514
	7	-1.552	.780	.959	-4.197	1.093
	8	-1.213	.810	1.000	-3.959	1.532
	9	-.649	.823	1.000	-3.438	2.140
	10	-.628	.761	1.000	-3.210	1.953
	11	.571	.814	1.000	-2.189	3.332
	12	-1.031	.824	1.000	-3.825	1.762
3	1	-1.706	.653	.464	-3.921	.509

4	2	-.499	.455	1.000	-2.041	1.043
	4	.491	.560	1.000	-1.407	2.389
	5	-.210	.674	1.000	-2.494	2.074
	6	-1.542	.744	.928	-4.066	.982
	7	-2.051	.781	.451	-4.699	.598
	8	-1.712	.796	.884	-4.410	.986
	9	-1.148	.813	1.000	-3.904	1.608
	10	-1.127	.772	1.000	-3.745	1.491
	11	.073	.867	1.000	-2.868	3.014
	12	-1.530	.870	.996	-4.478	1.418
	1	-2.197	.713	.138	-4.616	.222
	2	-.990	.603	.999	-3.036	1.057
5	3	-.491	.560	1.000	-2.389	1.407
	5	-.701	.505	1.000	-2.412	1.010
	6	-2.033	.707	.247	-4.431	.365
	7	-2.542	.779	.077	-5.182	.098
	8	-2.203	.807	.355	-4.938	.532
	9	-1.639	.815	.952	-4.402	1.124
	10	-1.618	.800	.948	-4.330	1.094
	11	-.418	.881	1.000	-3.405	2.569
	12	-2.021	.878	.768	-4.997	.955
	1	-1.496	.737	.946	-3.996	1.004
	2	-.289	.670	1.000	-2.562	1.985
	3	.210	.674	1.000	-2.074	2.494
6	4	.701	.505	1.000	-1.010	2.412
	6	-1.332	.577	.764	-3.290	.626
	7	-1.841	.652	.282	-4.050	.369
	8	-1.502	.707	.900	-3.898	.894
	9	-.938	.701	1.000	-3.315	1.439
	10	-.917	.702	1.000	-3.298	1.464
	11	.283	.750	1.000	-2.261	2.827
	12	-1.320	.767	.997	-3.920	1.280
	1	-.164	.740	1.000	-2.672	2.344



7	2	1.043	.754	1.000	-1.514	3.600
	3	1.542	.744	.928	-.982	4.066
	4	2.033	.707	.247	-.365	4.431
	5	1.332	.577	.764	-.626	3.290
	7	-.509	.372	1.000	-1.770	.752
	8	-.170	.508	1.000	-1.891	1.551
	9	.394	.558	1.000	-1.498	2.285
	10	.415	.600	1.000	-1.619	2.448
	11	1.615	.750	.883	-.929	4.158
	12	.012	.761	1.000	-2.570	2.593
	1	.345	.768	1.000	-2.259	2.949
	2	1.552	.780	.959	-1.093	4.197
8	3	2.051	.781	.451	-.598	4.699
	4	2.542	.779	.077	-.098	5.182
	5	1.841	.652	.282	-.369	4.050
	6	.509	.372	1.000	-.752	1.770
	8	.339	.394	1.000	-.996	1.673
	9	.903	.483	.986	-.734	2.540
	10	.924	.541	.998	-.910	2.757
	11	2.124	.719	.200	-.315	4.563
	12	.521	.736	1.000	-1.976	3.018
	1	.006	.797	1.000	-2.697	2.710
	2	1.213	.810	1.000	-1.532	3.959
	3	1.712	.796	.884	-.986	4.410
9	4	2.203	.807	.355	-.532	4.938
	5	1.502	.707	.900	-.894	3.898
	6	.170	.508	1.000	-1.551	1.891
	7	-.339	.394	1.000	-1.673	.996
	9	.564	.359	1.000	-.652	1.780
	10	.585	.460	1.000	-.974	2.144
	11	1.785	.693	.500	-.566	4.136
	12	.182	.742	1.000	-2.335	2.700
	1	-.558	.836	1.000	-3.391	2.275

10	2	.649	.823	1.000	-2.140	3.438
	3	1.148	.813	1.000	-1.608	3.904
	4	1.639	.815	.952	-1.124	4.402
	5	.938	.701	1.000	-1.439	3.315
	6	-.394	.558	1.000	-2.285	1.498
	7	-.903	.483	.986	-2.540	.734
	8	-.564	.359	1.000	-1.780	.652
	10	.021	.427	1.000	-1.427	1.468
	11	1.221	.630	.974	-.917	3.358
	12	-.382	.675	1.000	-2.671	1.907
	1	-.579	.775	1.000	-3.207	2.049
	2	.628	.761	1.000	-1.953	3.210
11	3	1.127	.772	1.000	-1.491	3.745
	4	1.618	.800	.948	-1.094	4.330
	5	.917	.702	1.000	-1.464	3.298
	6	-.415	.600	1.000	-2.448	1.619
	7	-.924	.541	.998	-2.757	.910
	8	-.585	.460	1.000	-2.144	.974
	9	-.021	.427	1.000	-1.468	1.427
	11	1.200	.508	.711	-.521	2.921
	12	-.403	.598	1.000	-2.431	1.625
	1	-1.779	.855	.923	-4.677	1.120
	2	-.571	.814	1.000	-3.332	2.189
	3	-.073	.867	1.000	-3.014	2.868
12	4	.418	.881	1.000	-2.569	3.405
	5	-.283	.750	1.000	-2.827	2.261
	6	-1.615	.750	.883	-4.158	.929
	7	-2.124	.719	.200	-4.563	.315
	8	-1.785	.693	.500	-4.136	.566
	9	-1.221	.630	.974	-3.358	.917
	10	-1.200	.508	.711	-2.921	.521
	12	-1.603	.494	.081	-3.277	.072
	1	-.176	.834	1.000	-3.003	2.651

2	1.031	.824	1.000	-1.762	3.825
3	1.530	.870	.996	-1.418	4.478
4	2.021	.878	.768	-.955	4.997
5	1.320	.767	.997	-1.280	3.920
6	-.012	.761	1.000	-2.593	2.570
7	-.521	.736	1.000	-3.018	1.976
8	-.182	.742	1.000	-2.700	2.335
9	.382	.675	1.000	-1.907	2.671
10	.403	.598	1.000	-1.625	2.431
11	1.603	.494	.081	-.072	3.277

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Diversity \* year

Measure: MEASURE\_1

Level of Diversity	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	51.546	1.302	48.986	54.106
	2	50.689	1.424	47.888	53.491
	3	51.462	1.517	48.478	54.446
	4	49.126	1.570	46.039	52.213
	5	49.966	1.515	46.988	52.945
	6	49.748	1.554	46.691	52.805
	7	50.160	1.658	46.899	53.420
	8	50.244	1.661	46.976	53.511
	9	50.034	1.613	46.862	53.205
	10	50.328	1.578	47.224	53.432
	11	48.345	1.621	45.157	51.532
	12	49.403	1.479	46.494	52.312
Medium	1	50.048	1.175	47.737	52.359
	2	48.432	1.286	45.902	50.961
	3	47.219	1.370	44.525	49.913

High	4	49.151	1.417	46.364	51.938
	5	49.390	1.367	46.701	52.080
	6	51.014	1.403	48.254	53.773
	7	51.356	1.497	48.413	54.300
	8	51.301	1.500	48.351	54.251
	9	50.671	1.456	47.808	53.535
	10	50.678	1.425	47.876	53.481
	11	49.562	1.463	46.684	52.439
	12	50.425	1.335	47.798	53.051
	1	51.227	1.514	48.250	54.204
	2	50.080	1.656	46.822	53.337
	3	49.023	1.764	45.553	52.493
	4	47.955	1.825	44.365	51.544
	5	48.977	1.761	45.513	52.441
	6	51.568	1.807	48.014	55.123
	7	52.341	1.928	48.550	56.132
	8	51.295	1.932	47.496	55.095
	9	50.443	1.875	46.755	54.132
	10	50.080	1.835	46.470	53.689
	11	49.580	1.884	45.873	53.286
	12	52.466	1.720	49.083	55.849

### ***General Linear Model of Level of Diversity for Product***

#### **Between-Subjects Factors**

		Value Label	N
Level of Diversity	1	Low	119
	2	Medium	146
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	17087.906	11	1553.446	18.119	.000	.049	1.000
	Greenhouse-Geisser	17087.906	3.552	4810.752	18.119	.000	.049	1.000
	Huynh-Feldt	17087.906	3.613	4729.003	18.119	.000	.049	1.000
	Lower-bound	17087.906	1.000	17087.906	18.119	.000	.049	.989
year * Divlevel	Sphericity Assumed	2437.740	22	110.806	1.292	.163	.007	.916
	Greenhouse-Geisser	2437.740	7.104	343.148	1.292	.250	.007	.564
	Huynh-Feldt	2437.740	7.227	337.317	1.292	.249	.007	.570
	Lower-bound	2437.740	2.000	1218.870	1.292	.276	.007	.280
Error(year)	Sphericity Assumed	330077.289	3850	85.734				
	Greenhouse-Geisser	330077.289	1243.208	265.504				
	Huynh-Feldt	330077.289	1264.699	260.993				
	Lower-bound	330077.289	350.000	943.078				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15995.501	1	15995.501	37.031	.000	.096	1.000
	Quadratic	586.422	1	586.422	3.703	.055	.010	.484
	Cubic	48.288	1	48.288	.500	.480	.001	.109
year * Divlevel	Linear	1591.591	2	795.795	1.842	.160	.010	.383
	Quadratic	203.920	2	101.960	.644	.526	.004	.158
	Cubic	32.138	2	16.069	.166	.847	.001	.076
Error(year)	Linear	151183.167	350	431.952				
	Quadratic	55421.343	350	158.347				
	Cubic	33830.733	350	96.659				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Divlevel	444.481	2	222.241	.094	.910	.001	.064
Error	826951.085	350	2362.717				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Diversity

#### Estimates

Measure: MEASURE\_1

Level of Diversity	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.289	1.286	47.759	52.819
Medium	49.959	1.161	47.676	52.243
High	49.435	1.496	46.493	52.377

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Diversity (J) Level of Diversity		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.330	1.733	.997	-3.828	4.487

Medium	High	.855	1.973	.962	-3.879	5.588
	Low	-.330	1.733	.997	-4.487	3.828
High	High	.525	1.894	.990	-4.019	5.068
	Low	-.855	1.973	.962	-5.588	3.879
	Medium	-.525	1.894	.990	-5.068	4.019

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	37.040	2	18.520	.094	.910	.001	.064
Error	68912.590	350	196.893				

The F tests the effect of Level of Diversity. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.219	.786	50.673	53.765
2	52.333	.841	50.680	53.986
3	52.429	.825	50.806	54.053
4	51.433	.868	49.726	53.140
5	50.841	.839	49.191	52.491
6	50.095	.856	48.411	51.779
7	49.812	.907	48.028	51.597
8	49.452	.930	47.622	51.281

9	48.941	.941	47.092	50.791
10	48.605	.966	46.706	50.505
11	46.854	1.012	44.864	48.844
12	45.718	1.025	43.702	47.735

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.114	.520	1.000	-1.877	1.648
	3	-.210	.590	1.000	-2.212	1.791
	4	.786	.704	1.000	-1.602	3.174
	5	1.377	.759	.992	-1.196	3.951
	6	2.124	.800	.422	-.588	4.837
	7	2.407	.870	.326	-.542	5.356
	8	2.767	.848	.077	-.109	5.644
	9	3.277(*)	.870	.013	.326	6.229
	10	3.614(*)	.865	.002	.682	6.546
	11	5.365(*)	.959	.000	2.114	8.615
	12	6.501(*)	.977	.000	3.187	9.814
2	1	.114	.520	1.000	-1.648	1.877
	3	-.096	.397	1.000	-1.442	1.250
	4	.901	.617	1.000	-1.191	2.992
	5	1.492	.710	.913	-.915	3.899
	6	2.239	.756	.195	-.325	4.802
	7	2.521	.833	.162	-.305	5.347
	8	2.882(*)	.828	.037	.074	5.689
	9	3.392(*)	.855	.006	.492	6.291
	10	3.728(*)	.867	.001	.790	6.667
	11	5.479(*)	.959	.000	2.229	8.729



3	12	6.615(*)	.989	.000	3.262	9.968
	1	.210	.590	1.000	-1.791	2.212
	2	.096	.397	1.000	-1.250	1.442
	4	.997	.509	.968	-.728	2.721
	5	1.588	.623	.525	-.524	3.700
	6	2.335	.721	.084	-.111	4.780
	7	2.617	.808	.083	-.122	5.356
	8	2.978(*)	.796	.014	.278	5.677
	9	3.488(*)	.839	.003	.645	6.331
	10	3.824(*)	.866	.001	.887	6.762
	11	5.575(*)	.941	.000	2.383	8.767
	12	6.711(*)	.962	.000	3.448	9.974
4	1	-.786	.704	1.000	-3.174	1.602
	2	-.901	.617	1.000	-2.992	1.191
	3	-.997	.509	.968	-2.721	.728
	5	.591	.471	1.000	-1.006	2.189
	6	1.338	.624	.888	-.776	3.452
	7	1.620	.715	.799	-.804	4.045
	8	1.981	.742	.410	-.536	4.498
	9	2.491	.796	.118	-.208	5.190
	10	2.828(*)	.820	.041	.046	5.609
	11	4.578(*)	.902	.000	1.520	7.637
	12	5.714(*)	.920	.000	2.595	8.833
5	1	-1.377	.759	.992	-3.951	1.196
	2	-1.492	.710	.913	-3.899	.915
	3	-1.588	.623	.525	-3.700	.524
	4	-.591	.471	1.000	-2.189	1.006
	6	.747	.453	.999	-.789	2.283
	7	1.029	.581	.995	-.941	3.000
	8	1.390	.628	.842	-.740	3.519
	9	1.900	.700	.369	-.472	4.272
	10	2.236	.727	.139	-.229	4.702
	11	3.987(*)	.797	.000	1.284	6.690

6	12	5.123(*)	.823	.000	2.331	7.915
	1	-2.124	.800	.422	-4.837	.588
	2	-2.239	.756	.195	-4.802	.325
	3	-2.335	.721	.084	-4.780	.111
	4	-1.338	.624	.888	-3.452	.776
	5	-.747	.453	.999	-2.283	.789
	7	.282	.385	1.000	-1.024	1.589
	8	.643	.484	1.000	-.998	2.284
	9	1.153	.573	.952	-.791	3.098
	10	1.489	.607	.622	-.569	3.548
	11	3.240(*)	.716	.001	.811	5.669
	12	4.376(*)	.738	.000	1.875	6.878
7	1	-2.407	.870	.326	-5.356	.542
	2	-2.521	.833	.162	-5.347	.305
	3	-2.617	.808	.083	-5.356	.122
	4	-1.620	.715	.799	-4.045	.804
	5	-1.029	.581	.995	-3.000	.941
	6	-.282	.385	1.000	-1.589	1.024
	8	.361	.329	1.000	-.753	1.475
	9	.871	.484	.993	-.769	2.511
	10	1.207	.575	.915	-.744	3.158
	11	2.958(*)	.687	.001	.628	5.287
	12	4.094(*)	.717	.000	1.663	6.525
8	1	-2.767	.848	.077	-5.644	.109
	2	-2.882(*)	.828	.037	-5.689	-.074
	3	-2.978(*)	.796	.014	-5.677	-.278
	4	-1.981	.742	.410	-4.498	.536
	5	-1.390	.628	.842	-3.519	.740
	6	-.643	.484	1.000	-2.284	.998
	7	-.361	.329	1.000	-1.475	.753
	9	.510	.365	1.000	-.727	1.748
	10	.847	.494	.998	-.829	2.523
	11	2.597(*)	.630	.003	.460	4.734

9	12	3.733(*)	.676	.000	1.442	6.025
	1	-3.277(*)	.870	.013	-6.229	-.326
	2	-3.392(*)	.855	.006	-6.291	-.492
	3	-3.488(*)	.839	.003	-6.331	-.645
	4	-2.491	.796	.118	-5.190	.208
	5	-1.900	.700	.369	-4.272	.472
	6	-1.153	.573	.952	-3.098	.791
	7	-.871	.484	.993	-2.511	.769
	8	-.510	.365	1.000	-1.748	.727
	10	.336	.353	1.000	-.861	1.534
	11	2.087(*)	.511	.004	.354	3.820
	12	3.223(*)	.585	.000	1.239	5.207
10	1	-3.614(*)	.865	.002	-6.546	-.682
	2	-3.728(*)	.867	.001	-6.667	-.790
	3	-3.824(*)	.866	.001	-6.762	-.887
	4	-2.828(*)	.820	.041	-5.609	-.046
	5	-2.236	.727	.139	-4.702	.229
	6	-1.489	.607	.622	-3.548	.569
	7	-1.207	.575	.915	-3.158	.744
	8	-.847	.494	.998	-2.523	.829
	9	-.336	.353	1.000	-1.534	.861
	11	1.751(*)	.404	.001	.380	3.121
	12	2.887(*)	.503	.000	1.182	4.591
11	1	-5.365(*)	.959	.000	-8.615	-2.114
	2	-5.479(*)	.959	.000	-8.729	-2.229
	3	-5.575(*)	.941	.000	-8.767	-2.383
	4	-4.578(*)	.902	.000	-7.637	-1.520
	5	-3.987(*)	.797	.000	-6.690	-1.284
	6	-3.240(*)	.716	.001	-5.669	-.811
	7	-2.958(*)	.687	.001	-5.287	-.628
	8	-2.597(*)	.630	.003	-4.734	-.460
	9	-2.087(*)	.511	.004	-3.820	-.354
	10	-1.751(*)	.404	.001	-3.121	-.380

12	12	1.136(*)	.327	.038	.026	2.246
	1	-6.501(*)	.977	.000	-9.814	-3.187
	2	-6.615(*)	.989	.000	-9.968	-3.262
	3	-6.711(*)	.962	.000	-9.974	-3.448
	4	-5.714(*)	.920	.000	-8.833	-2.595
	5	-5.123(*)	.823	.000	-7.915	-2.331
	6	-4.376(*)	.738	.000	-6.878	-1.875
	7	-4.094(*)	.717	.000	-6.525	-1.663
	8	-3.733(*)	.676	.000	-6.025	-1.442
	9	-3.223(*)	.585	.000	-5.207	-1.239
	10	-2.887(*)	.503	.000	-4.591	-1.182
	11	-1.136(*)	.327	.038	-2.246	-.026

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Diversity \* year

Measure: MEASURE\_1

Level of Diversity	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	52.235	1.325	49.629	54.841
	2	51.681	1.417	48.894	54.467
	3	51.672	1.391	48.936	54.409
	4	51.420	1.463	48.543	54.297
	5	51.824	1.414	49.042	54.605
	6	50.941	1.443	48.103	53.780
	7	50.303	1.529	47.295	53.310
	8	49.824	1.568	46.740	52.907
	9	49.429	1.585	46.310	52.547
	10	49.193	1.628	45.991	52.395
	11	47.832	1.706	44.477	51.186
	12	47.118	1.729	43.718	50.517

Medium	1	51.705	1.196	49.353	54.058
	2	52.705	1.279	50.190	55.221
	3	52.445	1.256	49.975	54.916
	4	50.151	1.321	47.553	52.748
	5	50.144	1.277	47.633	52.655
	6	49.877	1.303	47.314	52.439
	7	49.555	1.381	46.839	52.270
	8	49.486	1.415	46.702	52.270
	9	49.555	1.431	46.740	52.370
	10	49.349	1.470	46.459	52.240
	11	47.856	1.540	44.828	50.885
	12	46.685	1.561	43.616	49.754
High	1	52.716	1.541	49.685	55.747
	2	52.614	1.648	49.373	55.854
	3	53.170	1.618	49.988	56.353
	4	52.727	1.701	49.381	56.073
	5	50.557	1.645	47.322	53.791
	6	49.466	1.678	46.165	52.767
	7	49.580	1.778	46.082	53.077
	8	49.045	1.823	45.460	52.631
	9	47.841	1.844	44.215	51.467
	10	47.273	1.893	43.549	50.996
	11	44.875	1.983	40.974	48.776
	12	43.352	2.010	39.399	47.306

### ***General Linear Model of Level of Diversity for Corporate Governance***

#### **Between-Subjects Factors**

		Value Label	N
Level of Diversity	1	Low	119
	2	Medium	146

3	High	88
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#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	52043.621	11	4731.238	36.014	.000	.093	1.000
	Greenhouse-Geisser	52043.621	5.626	9250.464	36.014	.000	.093	1.000
	Huynh-Feldt	52043.621	5.761	9033.513	36.014	.000	.093	1.000
	Lower-bound	52043.621	1.000	52043.621	36.014	.000	.093	1.000
year * Divlevel	Sphericity Assumed	10846.288	22	493.013	3.753	.000	.021	1.000
	Greenhouse-Geisser	10846.288	11.252	963.934	3.753	.000	.021	.998
	Huynh-Feldt	10846.288	11.522	941.327	3.753	.000	.021	.999
	Lower-bound	10846.288	2.000	5423.144	3.753	.024	.021	.684
Error(year)	Sphericity Assumed	505783.121	3850	131.372				
	Greenhouse-Geisser	505783.121	1969.119	256.858				
	Huynh-Feldt	505783.121	2016.410	250.833				
	Lower-bound	505783.121	350.000	1445.095				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	48089.526	1	48089.526	103.146	.000	.228	1.000
	Quadratic	1135.127	1	1135.127	5.260	.022	.015	.628
	Cubic	587.303	1	587.303	3.866	.050	.011	.500
year * Divlevel	Linear	6441.472	2	3220.736	6.908	.001	.038	.922
	Quadratic	2475.607	2	1237.804	5.736	.004	.032	.865
	Cubic	241.921	2	120.960	.796	.452	.005	.186
Error(year)	Linear	163180.126	350	466.229				

Quadratic	75532.060	350	215.806				
Cubic	53164.681	350	151.899				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Divlevel	36410.017	2	18205.009	11.248	.000	.060	.992
Error	566498.919	350	1618.568				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Diversity

#### Estimates

Measure: MEASURE\_1

Level of Diversity	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	53.805	1.065	51.711	55.899
Medium	49.684	.961	47.793	51.574
High	46.142	1.238	43.707	48.577

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Diversity	(J) Level of Diversity	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	4.121(*)	1.434	.013	.680	7.562
	High	7.663(*)	1.633	.000	3.745	11.580
Medium	Low	-4.121(*)	1.434	.013	-7.562	-.680
	High	3.542	1.567	.072	-.219	7.302
High	Low	-7.663(*)	1.633	.000	-11.580	-3.745
	Medium	-3.542	1.567	.072	-7.302	.219

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3034.168	2	1517.084	11.248	.000	.060	.992
Error	47208.243	350	134.881				

The F tests the effect of Level of Diversity. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound



1	56.468	.333	55.813	57.124
2	55.473	.646	54.202	56.743
3	53.241	.723	51.818	54.663
4	51.396	.853	49.719	53.074
5	49.025	.887	47.281	50.770
6	50.636	.901	48.864	52.409
7	49.892	.944	48.036	51.748
8	47.116	.996	45.157	49.076
9	48.025	.979	46.099	49.950
10	46.831	.983	44.898	48.764
11	45.602	.968	43.698	47.506
12	44.816	.968	42.911	46.720

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.996	.597	.999	-1.029	3.021
	3	3.228(*)	.713	.001	.810	5.645
	4	5.072(*)	.870	.000	2.122	8.022
	5	7.443(*)	.911	.000	4.354	10.532
	6	5.832(*)	.933	.000	2.669	8.996
	7	6.576(*)	.987	.000	3.228	9.924
	8	9.352(*)	1.033	.000	5.849	12.856
	9	8.444(*)	1.014	.000	5.005	11.882
	10	9.638(*)	1.038	.000	6.117	13.158
	11	10.866(*)	1.027	.000	7.385	14.348
	12	11.653(*)	1.022	.000	8.187	15.119
2	1	-.996	.597	.999	-3.021	1.029
	3	2.232(*)	.567	.007	.309	4.155

3	4	4.077(*)	.759	.000	1.504	6.650
	5	6.448(*)	.820	.000	3.666	9.229
	6	4.836(*)	.847	.000	1.966	7.707
	7	5.581(*)	.925	.000	2.444	8.717
	8	8.357(*)	.960	.000	5.100	11.613
	9	7.448(*)	.997	.000	4.067	10.829
	10	8.642(*)	1.043	.000	5.104	12.179
	11	9.871(*)	1.021	.000	6.407	13.334
	12	10.657(*)	1.025	.000	7.181	14.134
	1	-3.228(*)	.713	.001	-5.645	-.810
	2	-2.232(*)	.567	.007	-4.155	-.309
	4	1.845	.716	.498	-.583	4.272
4	5	4.216(*)	.779	.000	1.573	6.859
	6	2.604	.855	.152	-.295	5.504
	7	3.349(*)	.960	.035	.094	6.603
	8	6.125(*)	.975	.000	2.819	9.430
	9	5.216(*)	1.022	.000	1.752	8.680
	10	6.410(*)	1.072	.000	2.775	10.045
	11	7.639(*)	1.039	.000	4.115	11.163
	12	8.425(*)	1.051	.000	4.862	11.989
	1	-5.072(*)	.870	.000	-8.022	-2.122
	2	-4.077(*)	.759	.000	-6.650	-1.504
	3	-1.845	.716	.498	-4.272	.583
	5	2.371(*)	.604	.007	.322	4.420
5	6	.760	.819	1.000	-2.017	3.536
	7	1.504	.883	.998	-1.490	4.497
	8	4.280(*)	.923	.000	1.150	7.411
	9	3.371(*)	.986	.045	.029	6.713
	10	4.565(*)	.996	.000	1.187	7.943
	11	5.794(*)	.947	.000	2.585	9.004
	12	6.581(*)	.949	.000	3.362	9.799
	1	-7.443(*)	.911	.000	-10.532	-4.354
	2	-6.448(*)	.820	.000	-9.229	-3.666

6	3	-4.216(*)	.779	.000	-6.859	-1.573
	4	-2.371(*)	.604	.007	-4.420	-.322
	6	-1.611	.721	.826	-4.057	.835
	7	-.867	.792	1.000	-3.554	1.820
	8	1.909	.831	.772	-.908	4.727
	9	1.000	.896	1.000	-2.038	4.039
	10	2.194	.919	.689	-.923	5.312
	11	3.423(*)	.875	.007	.455	6.391
	12	4.210(*)	.885	.000	1.210	7.209
	1	-5.832(*)	.933	.000	-8.996	-2.669
	2	-4.836(*)	.847	.000	-7.707	-1.966
	3	-2.604	.855	.152	-5.504	.295
7	4	-.760	.819	1.000	-3.536	2.017
	5	1.611	.721	.826	-.835	4.057
	7	.744	.684	1.000	-1.577	3.065
	8	3.520(*)	.842	.002	.664	6.376
	9	2.612	.937	.310	-.565	5.788
	10	3.805(*)	.951	.005	.581	7.030
	11	5.034(*)	.947	.000	1.824	8.245
	12	5.821(*)	.952	.000	2.593	9.049
	1	-6.576(*)	.987	.000	-9.924	-3.228
	2	-5.581(*)	.925	.000	-8.717	-2.444
	3	-3.349(*)	.960	.035	-6.603	-.094
	4	-1.504	.883	.998	-4.497	1.490
8	5	.867	.792	1.000	-1.820	3.554
	6	-.744	.684	1.000	-3.065	1.577
	8	2.776(*)	.729	.011	.305	5.247
	9	1.867	.863	.876	-1.058	4.793
	10	3.061	.921	.063	-.061	6.183
	11	4.290(*)	.887	.000	1.282	7.298
	12	5.077(*)	.902	.000	2.019	8.134
	1	-9.352(*)	1.033	.000	-12.856	-5.849
	2	-8.357(*)	.960	.000	-11.613	-5.100

9	3	-6.125(*)	.975	.000	-9.430	-2.819
	4	-4.280(*)	.923	.000	-7.411	-1.150
	5	-1.909	.831	.772	-4.727	.908
	6	-3.520(*)	.842	.002	-6.376	-.664
	7	-2.776(*)	.729	.011	-5.247	-.305
	9	-.909	.690	1.000	-3.247	1.429
	10	.285	.842	1.000	-2.571	3.141
	11	1.514	.856	.995	-1.389	4.417
	12	2.301	.878	.456	-.677	5.278
	1	-8.444(*)	1.014	.000	-11.882	-5.005
	2	-7.448(*)	.997	.000	-10.829	-4.067
	3	-5.216(*)	1.022	.000	-8.680	-1.752
10	4	-3.371(*)	.986	.045	-6.713	-.029
	5	-1.000	.896	1.000	-4.039	2.038
	6	-2.612	.937	.310	-5.788	.565
	7	-1.867	.863	.876	-4.793	1.058
	8	.909	.690	1.000	-1.429	3.247
	10	1.194	.715	.999	-1.230	3.617
	11	2.423	.799	.158	-.286	5.131
	12	3.209(*)	.842	.011	.354	6.064
	1	-9.638(*)	1.038	.000	-13.158	-6.117
	2	-8.642(*)	1.043	.000	-12.179	-5.104
	3	-6.410(*)	1.072	.000	-10.045	-2.775
	4	-4.565(*)	.996	.000	-7.943	-1.187
11	5	-2.194	.919	.689	-5.312	.923
	6	-3.805(*)	.951	.005	-7.030	-.581
	7	-3.061	.921	.063	-6.183	.061
	8	-.285	.842	1.000	-3.141	2.571
	9	-1.194	.715	.999	-3.617	1.230
	11	1.229	.565	.869	-.688	3.146
	12	2.015	.645	.120	-.172	4.203
	1	-10.866(*)	1.027	.000	-14.348	-7.385
	2	-9.871(*)	1.021	.000	-13.334	-6.407

12	3	-7.639(*)	1.039	.000	-11.163	-4.115
	4	-5.794(*)	.947	.000	-9.004	-2.585
	5	-3.423(*)	.875	.007	-6.391	-.455
	6	-5.034(*)	.947	.000	-8.245	-1.824
	7	-4.290(*)	.887	.000	-7.298	-1.282
	8	-1.514	.856	.995	-4.417	1.389
	9	-2.423	.799	.158	-5.131	.286
	10	-1.229	.565	.869	-3.146	.688
	12	.786	.369	.898	-.466	2.039
	1	-11.653(*)	1.022	.000	-15.119	-8.187
	2	-10.657(*)	1.025	.000	-14.134	-7.181
	3	-8.425(*)	1.051	.000	-11.989	-4.862
	4	-6.581(*)	.949	.000	-9.799	-3.362
	5	-4.210(*)	.885	.000	-7.209	-1.210
	6	-5.821(*)	.952	.000	-9.049	-2.593
	7	-5.077(*)	.902	.000	-8.134	-2.019
	8	-2.301	.878	.456	-5.278	.677
	9	-3.209(*)	.842	.011	-6.064	-.354
	10	-2.015	.645	.120	-4.203	.172
	11	-.786	.369	.898	-2.039	.466

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Diversity \* year

Measure: MEASURE\_1

Level of Diversity	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.563	.562	55.459	57.667
	2	56.563	1.089	54.421	58.705
	3	55.252	1.219	52.854	57.650
	4	53.504	1.438	50.677	56.332
	5	52.193	1.495	49.253	55.134

Medium	6	55.580	1.519	52.592	58.568
	7	56.782	1.591	53.653	59.910
	8	53.395	1.679	50.092	56.698
	9	53.395	1.650	50.149	56.640
	10	51.538	1.657	48.280	54.796
	11	50.664	1.632	47.454	53.874
	12	50.227	1.632	47.016	53.437
	1	55.842	.507	54.845	56.840
	2	55.219	.983	53.286	57.153
	3	53.527	1.101	51.363	55.692
	4	52.548	1.298	49.995	55.101
	5	50.144	1.350	47.489	52.798
High	6	49.966	1.372	47.268	52.664
	7	48.452	1.436	45.627	51.277
	8	46.760	1.516	43.778	49.742
	9	48.452	1.490	45.522	51.382
	10	46.137	1.496	43.196	49.078
	11	44.801	1.473	41.903	47.699
	12	44.356	1.474	41.458	47.255
	1	57.000	.653	55.716	58.284
	2	54.636	1.266	52.146	57.127
	3	50.943	1.418	48.155	53.732
	4	48.136	1.672	44.848	51.424
	5	44.739	1.739	41.319	48.158
	6	46.364	1.767	42.889	49.839
	7	44.443	1.850	40.805	48.082
	8	41.193	1.953	37.352	45.034
	9	42.227	1.919	38.453	46.001
	10	42.818	1.926	39.029	46.607
	11	41.341	1.898	37.608	45.074
	12	39.864	1.898	36.130	43.597

## APPENDIX G

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Compensation of Corporate Leaders

#### *General Linear Model of Level of Compensation of Corporate Leaders for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Level of Compensation	1	Low	107
	2	Medium	211
	3	High	35

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	7906.177	11	718.743	7.214	.000	.020	1.000
	Greenhouse-Geisser	7906.177	4.215	1875.575	7.214	.000	.020	.997
	Huynh-Feldt	7906.177	4.298	1839.711	7.214	.000	.020	.997
	Lower-bound	7906.177	1.000	7906.177	7.214	.008	.020	.764
year * complevel	Sphericity Assumed	8082.439	22	367.384	3.687	.000	.021	1.000
	Greenhouse-Geisser	8082.439	8.431	958.695	3.687	.000	.021	.990
	Huynh-Feldt	8082.439	8.595	940.363	3.687	.000	.021	.991
	Lower-bound	8082.439	2.000	4041.220	3.687	.026	.021	.676
Error(year)	Sphericity Assumed	383588.658	3850	99.633				
	Greenhouse-Geisser	383588.658	1475.367	259.995				
	Huynh-Feldt	383588.658	1504.129	255.024				
	Lower-bound	383588.658	350.000	1095.968				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6955.631	1	6955.631	16.227	.000	.044	.980
	Quadratic	94.137	1	94.137	.576	.448	.002	.118
	Cubic	499.376	1	499.376	4.825	.029	.014	.591
year * complevel	Linear	6065.053	2	3032.526	7.074	.001	.039	.929
	Quadratic	171.577	2	85.789	.525	.592	.003	.136
	Cubic	668.111	2	334.056	3.228	.041	.018	.614
Error(year)	Linear	150030.231	350	428.658				
	Quadratic	57189.112	350	163.397				
	Cubic	36222.835	350	103.494				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
complevel	12458.967	2	6229.483	2.829	.060	.016	.554
Error	770671.857	350	2201.920				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Compensation

Estimates



Measure: MEASURE\_1

Level of Compensation	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.880	1.310	48.305	53.456
Medium	49.835	.933	48.001	51.669
High	44.667	2.290	40.163	49.170

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Compensation	(J) Level of Compensation	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	1.045	1.608	.887	-2.812	4.902
	High	6.213	2.638	.056	-.115	12.542
Medium	Low	-1.045	1.608	.887	-4.902	2.812
	High	5.168	2.472	.108	-.763	11.100
High	Low	-6.213	2.638	.056	-12.542	.115
	Medium	-5.168	2.472	.108	-11.100	.763

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1038.247	2	519.124	2.829	.060	.016	.554
Error	64222.655	350	183.493				

The F tests the effect of Level of Compensation. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	49.919	1.136	47.685	52.154
2	50.747	1.190	48.406	53.088
3	51.025	1.321	48.427	53.622
4	49.544	1.197	47.189	51.899
5	49.871	1.203	47.505	52.236
6	48.696	1.098	46.536	50.856
7	48.884	1.135	46.651	51.116
8	47.549	1.108	45.371	49.727
9	47.082	1.126	44.868	49.297
10	46.016	1.020	44.011	48.022
11	45.733	1.022	43.724	47.743
12	46.460	1.107	44.282	48.638

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-.828	.589	1.000	-2.826	1.170
	3	-1.105	.840	1.000	-3.953	1.743
	4	.375	.986	1.000	-2.969	3.719
	5	.049	1.096	1.000	-3.669	3.766
	6	1.224	1.109	1.000	-2.538	4.985
	7	1.036	1.120	1.000	-2.761	4.832

2	8	2.370	1.124	.909	-1.440	6.180
	9	2.837	1.120	.542	-.961	6.635
	10	3.903(*)	1.131	.040	.069	7.737
	11	4.186(*)	1.147	.020	.298	8.074
	12	3.460	1.188	.223	-.567	7.486
	1	.828	.589	1.000	-1.170	2.826
	3	-.277	.639	1.000	-2.443	1.888
	4	1.203	.917	1.000	-1.906	4.312
	5	.876	1.048	1.000	-2.677	4.429
	6	2.051	1.109	.988	-1.709	5.811
	7	1.863	1.141	.999	-2.004	5.730
	8	3.198	1.137	.290	-.656	7.052
3	9	3.665	1.145	.095	-.219	7.549
	10	4.731(*)	1.153	.003	.821	8.640
	11	5.014(*)	1.180	.002	1.013	9.014
	12	4.287(*)	1.219	.032	.153	8.422
	1	1.105	.840	1.000	-1.743	3.953
	2	.277	.639	1.000	-1.888	2.443
	4	1.481	.813	.991	-1.277	4.238
	5	1.154	1.031	1.000	-2.342	4.650
	6	2.329	1.120	.924	-1.469	6.126
	7	2.141	1.157	.988	-1.782	6.063
	8	3.475	1.158	.173	-.449	7.400
	9	3.942	1.171	.055	-.029	7.914
4	10	5.008(*)	1.194	.002	.959	9.057
	11	5.291(*)	1.234	.002	1.109	9.474
	12	4.565(*)	1.287	.029	.201	8.928
	1	-.375	.986	1.000	-3.719	2.969
	2	-1.203	.917	1.000	-4.312	1.906
	3	-1.481	.813	.991	-4.238	1.277
	5	-.327	.750	1.000	-2.870	2.216
	6	.848	.941	1.000	-2.344	4.040
	7	.660	.993	1.000	-2.706	4.027

5	8	1.995	1.031	.974	-1.500	5.489
	9	2.462	1.036	.698	-1.050	5.973
	10	3.528	1.053	.057	-.043	7.098
	11	3.811(*)	1.095	.037	.097	7.525
	12	3.084	1.158	.414	-.841	7.009
	1	-.049	1.096	1.000	-3.766	3.669
	2	-.876	1.048	1.000	-4.429	2.677
	3	-1.154	1.031	1.000	-4.650	2.342
	4	.327	.750	1.000	-2.216	2.870
	6	1.175	.754	1.000	-1.381	3.731
	7	.987	.895	1.000	-2.049	4.023
6	8	2.322	.984	.715	-1.014	5.658
	9	2.788	1.054	.432	-.786	6.363
	10	3.854(*)	1.051	.019	.291	7.418
	11	4.138(*)	1.064	.008	.530	7.745
	12	3.411	1.095	.123	-.302	7.124
	1	-1.224	1.109	1.000	-4.985	2.538
	2	-2.051	1.109	.988	-5.811	1.709
	3	-2.329	1.120	.924	-6.126	1.469
	4	-.848	.941	1.000	-4.040	2.344
	5	-1.175	.754	1.000	-3.731	1.381
	7	-.188	.650	1.000	-2.393	2.018
7	8	1.147	.805	1.000	-1.584	3.878
	9	1.614	.910	.995	-1.471	4.698
	10	2.679	.960	.306	-.574	5.933
	11	2.963	.965	.141	-.309	6.235
	12	2.236	.959	.742	-1.017	5.489
	1	-1.036	1.120	1.000	-4.832	2.761
	2	-1.863	1.141	.999	-5.730	2.004
	3	-2.141	1.157	.988	-6.063	1.782
	4	-.660	.993	1.000	-4.027	2.706
	5	-.987	.895	1.000	-4.023	2.049
	6	.188	.650	1.000	-2.018	2.393

8	8	1.335	.665	.954	-.921	3.591
	9	1.801	.783	.769	-.853	4.456
	10	2.867	.858	.059	-.043	5.777
	11	3.151(*)	.887	.028	.144	6.157
	12	2.424	.849	.260	-.455	5.303
	1	-2.370	1.124	.909	-6.180	1.440
	2	-3.198	1.137	.290	-7.052	.656
	3	-3.475	1.158	.173	-7.400	.449
	4	-1.995	1.031	.974	-5.489	1.500
	5	-2.322	.984	.715	-5.658	1.014
	6	-1.147	.805	1.000	-3.878	1.584
	7	-1.335	.665	.954	-3.591	.921
9	9	.467	.468	1.000	-1.121	2.055
	10	1.533	.674	.793	-.753	3.819
	11	1.816	.707	.504	-.580	4.212
	12	1.089	.714	1.000	-1.332	3.511
	1	-2.837	1.120	.542	-6.635	.961
	2	-3.665	1.145	.095	-7.549	.219
	3	-3.942	1.171	.055	-7.914	.029
	4	-2.462	1.036	.698	-5.973	1.050
	5	-2.788	1.054	.432	-6.363	.786
	6	-1.614	.910	.995	-4.698	1.471
	7	-1.801	.783	.769	-4.456	.853
	8	-.467	.468	1.000	-2.055	1.121
10	10	1.066	.560	.980	-.831	2.963
	11	1.349	.667	.948	-.913	3.611
	12	.622	.694	1.000	-1.731	2.976
	1	-3.903(*)	1.131	.040	-7.737	-.069
	2	-4.731(*)	1.153	.003	-8.640	-.821
	3	-5.008(*)	1.194	.002	-9.057	-.959
	4	-3.528	1.053	.057	-7.098	.043
	5	-3.854(*)	1.051	.019	-7.418	-.291
	6	-2.679	.960	.306	-5.933	.574

11	7	-2.867	.858	.059	-5.777	.043
	8	-1.533	.674	.793	-3.819	.753
	9	-1.066	.560	.980	-2.963	.831
	11	.283	.405	1.000	-1.090	1.656
	12	-.443	.628	1.000	-2.571	1.685
	1	-4.186(*)	1.147	.020	-8.074	-.298
	2	-5.014(*)	1.180	.002	-9.014	-1.013
	3	-5.291(*)	1.234	.002	-9.474	-1.109
	4	-3.811(*)	1.095	.037	-7.525	-.097
	5	-4.138(*)	1.064	.008	-7.745	-.530
	6	-2.963	.965	.141	-6.235	.309
12	7	-3.151(*)	.887	.028	-6.157	-.144
	8	-1.816	.707	.504	-4.212	.580
	9	-1.349	.667	.948	-3.611	.913
	10	-.283	.405	1.000	-1.656	1.090
	12	-.727	.473	1.000	-2.330	.877
	1	-3.460	1.188	.223	-7.486	.567
	2	-4.287(*)	1.219	.032	-8.422	-.153
	3	-4.565(*)	1.287	.029	-8.928	-.201
	4	-3.084	1.158	.414	-7.009	.841
	5	-3.411	1.095	.123	-7.124	.302
	6	-2.236	.959	.742	-5.489	1.017
	7	-2.424	.849	.260	-5.303	.455
	8	-1.089	.714	1.000	-3.511	1.332
	9	-.622	.694	1.000	-2.976	1.731
	10	.443	.628	1.000	-1.685	2.571
	11	.727	.473	1.000	-.877	2.330

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Compensation \* year

Measure: MEASURE\_1

Level of Compensation	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	54.037	1.596	50.899	57.176
	2	56.140	1.672	52.853	59.428
	3	57.075	1.855	53.427	60.723
	4	53.056	1.681	49.750	56.362
	5	52.963	1.689	49.641	56.284
	6	51.607	1.542	48.575	54.640
	7	52.299	1.594	49.164	55.434
	8	48.813	1.555	45.754	51.872
	9	47.748	1.581	44.638	50.857
	10	44.981	1.432	42.165	47.797
	11	44.748	1.435	41.926	47.569
	12	47.093	1.555	44.035	50.152
Medium	1	50.635	1.136	48.400	52.870
	2	51.787	1.190	49.446	54.128
	3	53.227	1.321	50.630	55.825
	4	52.033	1.197	49.679	54.388
	5	51.564	1.203	49.199	53.929
	6	50.166	1.098	48.006	52.326
	7	50.038	1.135	47.805	52.270
	8	48.749	1.107	46.571	50.927
	9	48.128	1.126	45.914	50.342
	10	47.697	1.020	45.691	49.702
	11	47.081	1.022	45.071	49.090
	12	46.915	1.107	44.737	49.092
High	1	45.086	2.790	39.599	50.573
	2	44.314	2.923	38.566	50.063
	3	42.771	3.243	36.393	49.149
	4	43.543	2.939	37.762	49.324
	5	45.086	2.953	39.278	50.893
	6	44.314	2.696	39.011	49.617

7	44.314	2.787	38.833	49.796
8	45.086	2.719	39.738	50.434
9	45.371	2.764	39.935	50.808
10	45.371	2.503	40.448	50.295
11	45.371	2.509	40.438	50.305
12	45.371	2.719	40.025	50.718

### ***General Linear Model of Level of Compensation of Corporate Leaders for Diversity***

#### **Between-Subjects Factors**

	Value Label	N
Level of Compensation	1 Low	107
	2 Medium	211
	3 High	35

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	27074.884	11	2461.353	29.915	.000	.079	1.000
	Greenhouse-Geisser	27074.884	4.335	6245.383	29.915	.000	.079	1.000
	Huynh-Feldt	27074.884	4.421	6123.610	29.915	.000	.079	1.000
	Lower-bound	27074.884	1.000	27074.884	29.915	.000	.079	1.000
year * complevel	Sphericity Assumed	6989.782	22	317.717	3.862	.000	.022	1.000
	Greenhouse-Geisser	6989.782	8.670	806.169	3.862	.000	.022	.994
	Huynh-Feldt	6989.782	8.843	790.450	3.862	.000	.022	.995
	Lower-bound	6989.782	2.000	3494.891	3.862	.022	.022	.697
Error(year)	Sphericity Assumed	316766.115	3850	82.277				
	Greenhouse-Geisser	316766.115	1517.314	208.768				



Huynh-Feldt	316766.115	1547.488	204.697				
Lower-bound	316766.115	350.000	905.046				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	26199.616	1	26199.616	76.396	.000	.179	1.000
	Quadratic	597.376	1	597.376	3.630	.058	.010	.476
	Cubic	31.464	1	31.464	.436	.510	.001	.101
year * complevel	Linear	6165.002	2	3082.501	8.988	.000	.049	.973
	Quadratic	341.384	2	170.692	1.037	.356	.006	.231
	Cubic	63.240	2	31.620	.438	.646	.002	.121
Error(year)	Linear	120031.318	350	342.947				
	Quadratic	57603.918	350	164.583				
	Cubic	25284.230	350	72.241				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
complevel	74417.665	2	37208.833	19.025	.000	.098	1.000
Error	684527.509	350	1955.793				

a. Computed using alpha = .05

### Estimated Marginal Means

## 1. Level of Compensation

### Estimates

Measure: MEASURE\_1

Level of Compensation	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	56.371	1.234	53.944	58.799
Medium	47.667	.879	45.938	49.395
High	45.490	2.158	41.246	49.735

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Compensation	(J) Level of Compensation	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	8.705(*)	1.515	.000	5.070	12.340
	High	10.881(*)	2.486	.000	4.917	16.845
Medium	Low	-8.705(*)	1.515	.000	-12.340	-5.070
	High	2.176	2.330	.727	-3.414	7.766
High	Low	-10.881(*)	2.486	.000	-16.845	-4.917
	Medium	-2.176	2.330	.727	-7.766	3.414

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	6201.472	2	3100.736	19.025	.000	.098	1.000

Error	57043.959	350	162.983				
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The F tests the effect of Level of Compensation. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.293	.630	43.054	45.532
2	45.010	.706	43.621	46.399
3	45.820	.798	44.250	47.390
4	48.257	.990	46.309	50.204
5	49.157	1.005	47.180	51.134
6	49.661	1.091	47.514	51.807
7	50.803	1.124	48.592	53.014
8	51.727	1.176	49.414	54.039
9	52.460	1.226	50.049	54.871
10	53.176	1.250	50.717	55.635
11	53.904	1.271	51.405	56.403
12	53.848	1.232	51.425	56.272

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-.717	.301	.690	-1.737	.302

2	3	-1.527	.481	.102	-3.158	.104
	4	-3.964(*)	.737	.000	-6.462	-1.466
	5	-4.864(*)	.771	.000	-7.478	-2.251
	6	-5.368(*)	.923	.000	-8.498	-2.237
	7	-6.510(*)	.975	.000	-9.816	-3.205
	8	-7.434(*)	1.021	.000	-10.894	-3.974
	9	-8.167(*)	1.088	.000	-11.855	-4.478
	10	-8.883(*)	1.089	.000	-12.576	-5.190
	11	-9.611(*)	1.096	.000	-13.329	-5.894
	12	-9.556(*)	1.071	.000	-13.187	-5.924
	1	.717	.301	.690	-.302	1.737
	3	-.810	.385	.912	-2.115	.495
3	4	-3.247(*)	.685	.000	-5.571	-.922
	5	-4.147(*)	.730	.000	-6.622	-1.672
	6	-4.650(*)	.867	.000	-7.589	-1.712
	7	-5.793(*)	.912	.000	-8.884	-2.702
	8	-6.717(*)	.947	.000	-9.929	-3.504
	9	-7.450(*)	1.032	.000	-10.949	-3.951
	10	-8.165(*)	1.030	.000	-11.659	-4.672
	11	-8.894(*)	1.037	.000	-12.410	-5.377
	12	-8.838(*)	1.016	.000	-12.285	-5.392
	1	1.527	.481	.102	-.104	3.158
	2	.810	.385	.912	-.495	2.115
	4	-2.437(*)	.621	.007	-4.541	-.333
4	5	-3.337(*)	.712	.000	-5.753	-.921
	6	-3.841(*)	.868	.001	-6.783	-.898
	7	-4.983(*)	.919	.000	-8.099	-1.867
	8	-5.907(*)	.919	.000	-9.022	-2.791
	9	-6.640(*)	1.009	.000	-10.061	-3.219
	10	-7.356(*)	1.025	.000	-10.829	-3.882
	11	-8.084(*)	1.009	.000	-11.504	-4.664
	12	-8.029(*)	.996	.000	-11.407	-4.650
	1	3.964(*)	.737	.000	1.466	6.462

5	2	3.247(*)	.685	.000	.922	5.571
	3	2.437(*)	.621	.007	.333	4.541
	5	-.900	.566	1.000	-2.818	1.017
	6	-1.404	.778	.993	-4.041	1.234
	7	-2.546	.896	.270	-5.585	.493
	8	-3.470(*)	.890	.008	-6.487	-.452
	9	-4.203(*)	.992	.002	-7.566	-.840
	10	-4.919(*)	1.049	.000	-8.476	-1.362
	11	-5.647(*)	1.059	.000	-9.236	-2.058
	12	-5.592(*)	1.037	.000	-9.107	-2.077
	1	4.864(*)	.771	.000	2.251	7.478
	2	4.147(*)	.730	.000	1.672	6.622
6	3	3.337(*)	.712	.000	.921	5.753
	4	.900	.566	1.000	-1.017	2.818
	6	-.504	.626	1.000	-2.625	1.618
	7	-1.646	.777	.904	-4.280	.988
	8	-2.570	.815	.109	-5.332	.193
	9	-3.303(*)	.905	.020	-6.373	-.233
	10	-4.019(*)	1.009	.005	-7.440	-.597
	11	-4.747(*)	1.029	.000	-8.236	-1.258
	12	-4.691(*)	.998	.000	-8.077	-1.306
	1	5.368(*)	.923	.000	2.237	8.498
	2	4.650(*)	.867	.000	1.712	7.589
	3	3.841(*)	.868	.001	.898	6.783
7	4	1.404	.778	.993	-1.234	4.041
	5	.504	.626	1.000	-1.618	2.625
	7	-1.142	.586	.970	-3.128	.843
	8	-2.066	.762	.372	-4.649	.517
	9	-2.799	.935	.177	-5.969	.371
	10	-3.515	1.059	.063	-7.104	.074
	11	-4.243(*)	1.099	.009	-7.968	-.518
	12	-4.188(*)	1.040	.005	-7.714	-.662
	1	6.510(*)	.975	.000	3.205	9.816

8	2	5.793(*)	.912	.000	2.702	8.884
	3	4.983(*)	.919	.000	1.867	8.099
	4	2.546	.896	.270	-.493	5.585
	5	1.646	.777	.904	-.988	4.280
	6	1.142	.586	.970	-.843	3.128
	8	-.924	.602	1.000	-2.964	1.117
	9	-1.657	.833	.960	-4.483	1.169
	10	-2.373	.978	.649	-5.688	.943
	11	-3.101	1.032	.172	-6.600	.398
	12	-3.045	.971	.115	-6.337	.247
	1	7.434(*)	1.021	.000	3.974	10.894
	2	6.717(*)	.947	.000	3.504	9.929
9	3	5.907(*)	.919	.000	2.791	9.022
	4	3.470(*)	.890	.008	.452	6.487
	5	2.570	.815	.109	-.193	5.332
	6	2.066	.762	.372	-.517	4.649
	7	.924	.602	1.000	-1.117	2.964
	9	-.733	.632	1.000	-2.876	1.410
	10	-1.449	.833	.997	-4.272	1.374
	11	-2.177	.892	.636	-5.203	.848
	12	-2.122	.874	.647	-5.084	.841
	1	8.167(*)	1.088	.000	4.478	11.855
	2	7.450(*)	1.032	.000	3.951	10.949
	3	6.640(*)	1.009	.000	3.219	10.061
10	4	4.203(*)	.992	.002	.840	7.566
	5	3.303(*)	.905	.020	.233	6.373
	6	2.799	.935	.177	-.371	5.969
	7	1.657	.833	.960	-1.169	4.483
	8	.733	.632	1.000	-1.410	2.876
	10	-.716	.692	1.000	-3.061	1.630
	11	-1.444	.841	.998	-4.296	1.408
	12	-1.389	.800	.997	-4.100	1.323
	1	8.883(*)	1.089	.000	5.190	12.576

11	2	8.165(*)	1.030	.000	4.672	11.659
	3	7.356(*)	1.025	.000	3.882	10.829
	4	4.919(*)	1.049	.000	1.362	8.476
	5	4.019(*)	1.009	.005	.597	7.440
	6	3.515	1.059	.063	-.074	7.104
	7	2.373	.978	.649	-.943	5.688
	8	1.449	.833	.997	-1.374	4.272
	9	.716	.692	1.000	-1.630	3.061
	11	-.728	.588	1.000	-2.723	1.266
	12	-.673	.712	1.000	-3.087	1.741
	1	9.611(*)	1.096	.000	5.894	13.329
	2	8.894(*)	1.037	.000	5.377	12.410
12	3	8.084(*)	1.009	.000	4.664	11.504
	4	5.647(*)	1.059	.000	2.058	9.236
	5	4.747(*)	1.029	.000	1.258	8.236
	6	4.243(*)	1.099	.009	.518	7.968
	7	3.101	1.032	.172	-.398	6.600
	8	2.177	.892	.636	-.848	5.203
	9	1.444	.841	.998	-1.408	4.296
	10	.728	.588	1.000	-1.266	2.723
	12	.055	.515	1.000	-1.692	1.803
	1	9.556(*)	1.071	.000	5.924	13.187
	2	8.838(*)	1.016	.000	5.392	12.285
	3	8.029(*)	.996	.000	4.650	11.407
	4	5.592(*)	1.037	.000	2.077	9.107
	5	4.691(*)	.998	.000	1.306	8.077
	6	4.188(*)	1.040	.005	.662	7.714
	7	3.045	.971	.115	-.247	6.337
	8	2.122	.874	.647	-.841	5.084
	9	1.389	.800	.997	-1.323	4.100
	10	.673	.712	1.000	-1.741	3.087
	11	-.055	.515	1.000	-1.803	1.692

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Compensation \* year

Measure: MEASURE\_1

Level of Compensation	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.953	.884	45.214	48.693
	2	48.607	.992	46.657	50.558
	3	49.907	1.121	47.702	52.111
	4	53.523	1.391	50.788	56.258
	5	55.570	1.411	52.794	58.346
	6	56.850	1.533	53.836	59.865
	7	58.598	1.579	55.493	61.703
	8	58.336	1.651	55.089	61.584
	9	60.766	1.721	57.381	64.152
	10	61.579	1.756	58.126	65.032
	11	63.402	1.784	59.893	66.911
	12	62.364	1.730	58.962	65.767
Medium	1	42.725	.630	41.486	43.964
	2	43.194	.706	41.805	44.584
	3	43.839	.798	42.269	45.409
	4	46.133	.990	44.185	48.080
	5	46.787	1.005	44.810	48.763
	6	47.445	1.091	45.299	49.592
	7	48.697	1.124	46.485	50.908
	8	49.872	1.176	47.560	52.184
	9	50.299	1.226	47.888	52.709
	10	51.062	1.250	48.603	53.521
	11	50.938	1.271	48.440	53.437
	12	51.009	1.232	48.586	53.433
High	1	43.200	1.546	40.159	46.241



2	43.229	1.734	39.818	46.640
3	43.714	1.960	39.860	47.568
4	45.114	2.431	40.332	49.896
5	45.114	2.468	40.261	49.967
6	44.686	2.680	39.416	49.956
7	45.114	2.761	39.685	50.544
8	46.971	2.887	41.294	52.649
9	46.314	3.010	40.395	52.234
10	46.886	3.070	40.848	52.923
11	47.371	3.120	41.236	53.507
12	48.171	3.025	42.222	54.121

### ***General Linear Model of Level of Compensation of Corporate Leaders for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
Level of Compensation	1	Low	107
	2	Medium	211
	3	High	35

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	5514.840	11	501.349	4.614	.000	.013	1.000
	Greenhouse-Geisser	5514.840	3.887	1418.625	4.614	.001	.013	.943
	Huynh-Feldt	5514.840	3.959	1392.976	4.614	.001	.013	.946
	Lower-bound	5514.840	1.000	5514.840	4.614	.032	.013	.572
year * complevel	Sphericity Assumed	2845.742	22	129.352	1.190	.244	.007	.885

Error(year)	Greenhouse-Geisser	2845.742	7.775	366.016	1.190	.302	.007	.551
	Huynh-Feldt	2845.742	7.918	359.398	1.190	.301	.007	.556
	Lower-bound	2845.742	2.000	1422.871	1.190	.305	.007	.260
	Sphericity Assumed	418323.461	3850	108.655				
	Greenhouse-Geisser	418323.461	1360.609	307.453				
	Huynh-Feldt	418323.461	1385.662	301.894				
	Lower-bound	418323.461	350.000	1195.210				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	2436.508	1	2436.508	4.849	.028	.014	.593
	Quadratic	2545.452	1	2545.452	12.864	.000	.035	.947
	Cubic	60.124	1	60.124	.505	.478	.001	.109
year * complevel	Linear	1117.504	2	558.752	1.112	.330	.006	.245
	Quadratic	18.946	2	9.473	.048	.953	.000	.057
	Cubic	537.628	2	268.814	2.259	.106	.013	.459
Error(year)	Linear	175882.010	350	502.520				
	Quadratic	69253.736	350	197.868				
	Cubic	41640.394	350	118.973				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
complevel	7744.693	2	3872.346	1.867	.156	.011	.388
Error	725957.945	350	2074.166				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Compensation

#### Estimates

Measure: MEASURE\_1

Level of Compensation	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	51.945	1.271	49.445	54.444
Medium	48.931	.905	47.151	50.711
High	49.817	2.222	45.446	54.187

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Compensation	(J) Level of Compensation	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	3.014	1.560	.154	-.730	6.757
	High	2.128	2.560	.791	-4.014	8.270
Medium	Low	-3.014	1.560	.154	-6.757	.730
	High	-.886	2.400	.976	-6.643	4.871
High	Low	-2.128	2.560	.791	-8.270	4.014
	Medium	.886	2.400	.976	-4.871	6.643

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	645.391	2	322.696	1.867	.156	.011	.388
Error	60496.495	350	172.847				

The F tests the effect of Level of Compensation. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	46.599	.832	44.962	48.236
2	48.889	.950	47.021	50.756
3	49.404	1.000	47.437	51.370
4	49.591	1.068	47.490	51.691
5	50.741	1.120	48.537	52.944
6	50.385	1.090	48.242	52.528
7	51.406	1.180	49.086	53.727
8	51.973	1.270	49.476	54.470
9	51.642	1.253	49.178	54.106
10	51.965	1.249	49.509	54.421
11	50.481	1.244	48.034	52.928
12	49.693	1.279	47.178	52.209

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	-2.290(*)	.650	.032	-4.494	-.085
	3	-2.805(*)	.764	.018	-5.395	-.215
	4	-2.992	.999	.177	-6.378	.395
	5	-4.142(*)	1.008	.003	-7.561	-.722
	6	-3.786(*)	.999	.012	-7.174	-.399
	7	-4.808(*)	1.074	.001	-8.448	-1.167
	8	-5.374(*)	1.195	.001	-9.426	-1.322
	9	-5.043(*)	1.181	.002	-9.047	-1.038
	10	-5.366(*)	1.257	.002	-9.628	-1.105
	11	-3.882	1.270	.148	-8.190	.426
	12	-3.094	1.302	.699	-7.509	1.321
2	1	2.290(*)	.650	.032	.085	4.494
	3	-.515	.599	1.000	-2.545	1.514
	4	-.702	.908	1.000	-3.781	2.377
	5	-1.852	.959	.975	-5.104	1.400
	6	-1.497	.989	1.000	-4.852	1.858
	7	-2.518	1.068	.716	-6.138	1.102
	8	-3.084	1.186	.474	-7.106	.937
	9	-2.753	1.179	.738	-6.751	1.244
	10	-3.077	1.250	.614	-7.314	1.161
	11	-1.592	1.268	1.000	-5.891	2.706
	12	-.805	1.300	1.000	-5.214	3.604
3	1	2.805(*)	.764	.018	.215	5.395
	2	.515	.599	1.000	-1.514	2.545
	4	-.187	.737	1.000	-2.686	2.312
	5	-1.337	.907	1.000	-4.413	1.740
	6	-.981	.982	1.000	-4.311	2.348
	7	-2.003	1.031	.972	-5.499	1.494
	8	-2.569	1.138	.806	-6.426	1.288
	9	-2.238	1.118	.955	-6.027	1.551
	10	-2.561	1.164	.851	-6.509	1.386

4	11	-1.077	1.185	1.000	-5.097	2.942
	12	-.289	1.216	1.000	-4.412	3.833
	1	2.992	.999	.177	-.395	6.378
	2	.702	.908	1.000	-2.377	3.781
	3	.187	.737	1.000	-2.312	2.686
	5	-1.150	.687	.999	-3.481	1.180
	6	-.795	.955	1.000	-4.034	2.445
	7	-1.816	1.013	.994	-5.252	1.620
	8	-2.382	1.126	.905	-6.200	1.435
	9	-2.051	1.125	.991	-5.865	1.762
	10	-2.375	1.204	.965	-6.458	1.708
	11	-.890	1.224	1.000	-5.040	3.259
5	12	-.103	1.258	1.000	-4.368	4.163
	1	4.142(*)	1.008	.003	.722	7.561
	2	1.852	.959	.975	-1.400	5.104
	3	1.337	.907	1.000	-1.740	4.413
	4	1.150	.687	.999	-1.180	3.481
	6	.355	.793	1.000	-2.332	3.043
	7	-.666	.935	1.000	-3.838	2.506
	8	-1.232	1.115	1.000	-5.011	2.547
	9	-.901	1.103	1.000	-4.642	2.839
	10	-1.225	1.231	1.000	-5.398	2.949
	11	.260	1.271	1.000	-4.050	4.569
	12	1.047	1.321	1.000	-3.432	5.527
6	1	3.786(*)	.999	.012	.399	7.174
	2	1.497	.989	1.000	-1.858	4.852
	3	.981	.982	1.000	-2.348	4.311
	4	.795	.955	1.000	-2.445	4.034
	5	-.355	.793	1.000	-3.043	2.332
	7	-1.021	.570	.994	-2.955	.913
	8	-1.588	.820	.974	-4.369	1.194
	9	-1.257	.881	1.000	-4.244	1.731
	10	-1.580	1.039	1.000	-5.103	1.943

7	11	-.096	1.109	1.000	-3.857	3.665
	12	.692	1.150	1.000	-3.206	4.590
	1	4.808(*)	1.074	.001	1.167	8.448
	2	2.518	1.068	.716	-1.102	6.138
	3	2.003	1.031	.972	-1.494	5.499
	4	1.816	1.013	.994	-1.620	5.252
	5	.666	.935	1.000	-2.506	3.838
	6	1.021	.570	.994	-.913	2.955
	8	-.566	.644	1.000	-2.750	1.617
	9	-.235	.753	1.000	-2.790	2.319
	10	-.559	.955	1.000	-3.796	2.678
	11	.925	1.040	1.000	-2.601	4.452
8	12	1.713	1.099	1.000	-2.014	5.440
	1	5.374(*)	1.195	.001	1.322	9.426
	2	3.084	1.186	.474	-.937	7.106
	3	2.569	1.138	.806	-1.288	6.426
	4	2.382	1.126	.905	-1.435	6.200
	5	1.232	1.115	1.000	-2.547	5.011
	6	1.588	.820	.974	-1.194	4.369
	7	.566	.644	1.000	-1.617	2.750
	9	.331	.519	1.000	-1.427	2.089
	10	.008	.787	1.000	-2.662	2.678
	11	1.492	.881	.998	-1.494	4.478
	12	2.280	.950	.677	-.943	5.502
9	1	5.043(*)	1.181	.002	1.038	9.047
	2	2.753	1.179	.738	-1.244	6.751
	3	2.238	1.118	.955	-1.551	6.027
	4	2.051	1.125	.991	-1.762	5.865
	5	.901	1.103	1.000	-2.839	4.642
	6	1.257	.881	1.000	-1.731	4.244
	7	.235	.753	1.000	-2.319	2.790
	8	-.331	.519	1.000	-2.089	1.427
	10	-.323	.663	1.000	-2.573	1.926

10	11	1.161	.792	1.000	-1.523	3.845
	12	1.949	.872	.824	-1.007	4.904
	1	5.366(*)	1.257	.002	1.105	9.628
	2	3.077	1.250	.614	-1.161	7.314
	3	2.561	1.164	.851	-1.386	6.509
	4	2.375	1.204	.965	-1.708	6.458
	5	1.225	1.231	1.000	-2.949	5.398
	6	1.580	1.039	1.000	-1.943	5.103
	7	.559	.955	1.000	-2.678	3.796
	8	-.008	.787	1.000	-2.678	2.662
	9	.323	.663	1.000	-1.926	2.573
	11	1.484	.474	.117	-.122	3.091
11	12	2.272(*)	.603	.013	.229	4.315
	1	3.882	1.270	.148	-.426	8.190
	2	1.592	1.268	1.000	-2.706	5.891
	3	1.077	1.185	1.000	-2.942	5.097
	4	.890	1.224	1.000	-3.259	5.040
	5	-.260	1.271	1.000	-4.569	4.050
	6	.096	1.109	1.000	-3.665	3.857
	7	-.925	1.040	1.000	-4.452	2.601
	8	-1.492	.881	.998	-4.478	1.494
	9	-1.161	.792	1.000	-3.845	1.523
	10	-1.484	.474	.117	-3.091	.122
	12	.788	.392	.953	-.541	2.116
12	1	3.094	1.302	.699	-1.321	7.509
	2	.805	1.300	1.000	-3.604	5.214
	3	.289	1.216	1.000	-3.833	4.412
	4	.103	1.258	1.000	-4.163	4.368
	5	-1.047	1.321	1.000	-5.527	3.432
	6	-.692	1.150	1.000	-4.590	3.206
	7	-1.713	1.099	1.000	-5.440	2.014
	8	-2.280	.950	.677	-5.502	.943
	9	-1.949	.872	.824	-4.904	1.007



10	-2.272(*)	.603	.013	-4.315	-.229
11	-.788	.392	.953	-2.116	.541

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Compensation \* year

Measure: MEASURE\_1

Level of Compensation	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	47.009	1.169	44.710	49.308
	2	50.000	1.333	47.377	52.623
	3	50.598	1.404	47.837	53.360
	4	50.523	1.500	47.574	53.473
	5	51.121	1.573	48.027	54.216
	6	52.103	1.530	49.093	55.112
	7	52.776	1.657	49.517	56.035
	8	54.430	1.783	50.923	57.937
	9	54.121	1.759	50.661	57.582
	10	55.393	1.753	51.944	58.841
	11	53.299	1.747	49.863	56.735
	12	51.963	1.796	48.430	55.495
Medium	1	44.616	.832	42.979	46.253
	2	46.209	.950	44.341	48.076
	3	47.156	1.000	45.190	49.123
	4	49.848	1.068	47.748	51.949
	5	50.872	1.120	48.669	53.076
	6	48.825	1.090	46.682	50.968
	7	49.815	1.180	47.494	52.136
	8	50.318	1.270	47.820	52.815
	9	50.090	1.253	47.626	52.554
	10	50.275	1.249	47.819	52.731

High	11	49.744	1.244	47.297	52.191
	12	49.403	1.279	46.887	51.918
	1	48.171	2.044	44.151	52.191
	2	50.457	2.332	45.872	55.043
	3	50.457	2.455	45.629	55.286
	4	48.400	2.622	43.243	53.557
	5	50.229	2.751	44.818	55.639
	6	50.229	2.675	44.967	55.490
	7	51.629	2.897	45.930	57.327
	8	51.171	3.117	45.040	57.303
	9	50.714	3.076	44.664	56.765
	10	50.229	3.066	44.199	56.258
	11	48.400	3.055	42.392	54.408
	12	47.714	3.140	41.538	53.891

### ***General Linear Model of Level of Compensation of Corporate Leaders for Environment***

#### **Between-Subjects Factors**

		Value Label	N
Level of Compensation	1	Low	107
	2	Medium	211
	3	High	35

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	1255.292	11	114.117	1.362	.184	.004	.739
	Greenhouse-Geisser	1255.292	4.985	251.819	1.362	.236	.004	.486

	Huynh-Feldt	1255.292	5.094	246.403	1.362	.235	.004	.492
	Lower-bound	1255.292	1.000	1255.292	1.362	.244	.004	.214
year * complevel	Sphericity Assumed	1004.078	22	45.640	.545	.958	.003	.465
	Greenhouse-Geisser	1004.078	9.970	100.712	.545	.859	.003	.290
	Huynh-Feldt	1004.078	10.189	98.546	.545	.862	.003	.294
	Lower-bound	1004.078	2.000	502.039	.545	.581	.003	.140
Error(year)	Sphericity Assumed	322656.234	3850	83.807				
	Greenhouse-Geisser	322656.234	1744.712	184.934				
	Huynh-Feldt	322656.234	1783.062	180.956				
	Lower-bound	322656.234	350.000	921.875				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	73.402	1	73.402	.247	.620	.001	.079
	Quadratic	15.343	1	15.343	.093	.760	.000	.061
	Cubic	348.876	1	348.876	2.962	.086	.008	.404
year * complevel	Linear	1.407	2	.704	.002	.998	.000	.050
	Quadratic	433.483	2	216.741	1.315	.270	.007	.284
	Cubic	172.702	2	86.351	.733	.481	.004	.174
Error(year)	Linear	104044.170	350	297.269				
	Quadratic	57699.325	350	164.855				
	Cubic	41223.748	350	117.782				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
complevel	45131.992	2	22565.996	9.563	.000	.052	.980
Error	825925.322	350	2359.787				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Compensation

#### Estimates

Measure: MEASURE\_1

Level of Compensation	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	46.102	1.356	43.436	48.768
Medium	50.915	.965	49.017	52.814
High	57.488	2.370	52.826	62.150

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Compensation	(J) Level of Compensation	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-4.813(*)	1.664	.012	-8.806	-.820
	High	-11.386(*)	2.731	.000	-17.937	-4.835
Medium	Low	4.813(*)	1.664	.012	.820	8.806
	High	-6.573(*)	2.559	.032	-12.713	-.432
High	Low	11.386(*)	2.731	.000	4.835	17.937

	Medium	6.573(*)	2.559	.032	.432	12.713
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Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3760.999	2	1880.500	9.563	.000	.052	.980
Error	68827.110	350	196.649				

The F tests the effect of Level of Compensation. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.065	.959	50.177	53.952
2	51.113	1.049	49.050	53.176
3	50.478	1.123	48.269	52.687
4	50.295	1.156	48.021	52.568
5	51.284	1.109	49.102	53.465
6	51.836	1.150	49.575	54.098
7	52.511	1.225	50.103	54.920
8	52.428	1.220	50.028	54.828
9	51.753	1.186	49.419	54.086
10	51.684	1.156	49.409	53.958
11	50.675	1.198	48.318	53.031

12	51.902	1.102	49.736	54.069
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### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.951	.691	1.000	-1.390	3.293
	3	1.586	.830	.979	-1.229	4.402
	4	1.770	.905	.969	-1.298	4.838
	5	.781	.932	1.000	-2.380	3.942
	6	.228	.940	1.000	-2.959	3.415
	7	-.447	.975	1.000	-3.753	2.860
	8	-.363	1.010	1.000	-3.787	3.061
	9	.312	1.058	1.000	-3.277	3.901
	10	.381	.980	1.000	-2.943	3.705
	11	1.390	1.085	1.000	-2.288	5.068
	12	.162	1.059	1.000	-3.428	3.752
2	1	-.951	.691	1.000	-3.293	1.390
	3	.635	.579	1.000	-1.328	2.597
	4	.819	.769	1.000	-1.788	3.425
	5	-.171	.850	1.000	-3.054	2.713
	6	-.723	.960	1.000	-3.979	2.532
	7	-1.398	.993	1.000	-4.765	1.968
	8	-1.315	1.029	1.000	-4.802	2.173
	9	-.639	1.044	1.000	-4.181	2.902
	10	-.571	.966	1.000	-3.845	2.703
	11	.438	1.036	1.000	-3.074	3.951
	12	-.789	1.047	1.000	-4.340	2.761
3	1	-1.586	.830	.979	-4.402	1.229
	2	-.635	.579	1.000	-2.597	1.328

4	4	.184	.721	1.000	-2.260	2.628
	5	-.805	.859	1.000	-3.719	2.108
	6	-1.358	.957	1.000	-4.602	1.886
	7	-2.033	1.003	.947	-5.435	1.369
	8	-1.950	1.019	.979	-5.406	1.506
	9	-1.274	1.039	1.000	-4.797	2.248
	10	-1.205	.986	1.000	-4.549	2.139
	11	-.196	1.110	1.000	-3.959	3.566
	12	-1.424	1.112	1.000	-5.194	2.345
	1	-1.770	.905	.969	-4.838	1.298
	2	-.819	.769	1.000	-3.425	1.788
	3	-.184	.721	1.000	-2.628	2.260
5	5	-.989	.639	1.000	-3.154	1.176
	6	-1.542	.898	.998	-4.587	1.504
	7	-2.217	.990	.821	-5.572	1.139
	8	-2.133	1.022	.920	-5.599	1.333
	9	-1.458	1.032	1.000	-4.958	2.042
	10	-1.389	1.012	1.000	-4.821	2.043
	11	-.380	1.117	1.000	-4.167	3.407
	12	-1.608	1.114	1.000	-5.385	2.169
	1	-.781	.932	1.000	-3.942	2.380
	2	.171	.850	1.000	-2.713	3.054
	3	.805	.859	1.000	-2.108	3.719
	4	.989	.639	1.000	-1.176	3.154
6	6	-.553	.732	1.000	-3.036	1.931
	7	-1.228	.828	1.000	-4.036	1.581
	8	-1.144	.896	1.000	-4.181	1.893
	9	-.469	.888	1.000	-3.479	2.541
	10	-.400	.888	1.000	-3.409	2.609
	11	.609	.951	1.000	-2.617	3.834
	12	-.619	.972	1.000	-3.915	2.677
	1	-.228	.940	1.000	-3.415	2.959
	2	.723	.960	1.000	-2.532	3.979

7	3	1.358	.957	1.000	-1.886	4.602
	4	1.542	.898	.998	-1.504	4.587
	5	.553	.732	1.000	-1.931	3.036
	7	-.675	.470	1.000	-2.270	.920
	8	-.592	.640	1.000	-2.763	1.580
	9	.084	.706	1.000	-2.310	2.478
	10	.153	.759	1.000	-2.422	2.727
	11	1.162	.949	1.000	-2.057	4.380
	12	-.066	.962	1.000	-3.329	3.197
	1	.447	.975	1.000	-2.860	3.753
	2	1.398	.993	1.000	-1.968	4.765
	3	2.033	1.003	.947	-1.369	5.435
8	4	2.217	.990	.821	-1.139	5.572
	5	1.228	.828	1.000	-1.581	4.036
	6	.675	.470	1.000	-.920	2.270
	8	.083	.498	1.000	-1.606	1.773
	9	.759	.613	1.000	-1.319	2.837
	10	.828	.687	1.000	-1.501	3.156
	11	1.837	.911	.950	-1.251	4.924
	12	.609	.929	1.000	-2.541	3.758
	1	.363	1.010	1.000	-3.061	3.787
	2	1.315	1.029	1.000	-2.173	4.802
	3	1.950	1.019	.979	-1.506	5.406
	4	2.133	1.022	.920	-1.333	5.599
9	5	1.144	.896	1.000	-1.893	4.181
	6	.592	.640	1.000	-1.580	2.763
	7	-.083	.498	1.000	-1.773	1.606
	9	.675	.454	1.000	-.864	2.215
	10	.744	.583	1.000	-1.232	2.721
	11	1.753	.876	.956	-1.216	4.723
	12	.525	.935	1.000	-2.645	3.696
	1	-.312	1.058	1.000	-3.901	3.277
	2	.639	1.044	1.000	-2.902	4.181



10	3	1.274	1.039	1.000	-2.248	4.797
	4	1.458	1.032	1.000	-2.042	4.958
	5	.469	.888	1.000	-2.541	3.479
	6	-.084	.706	1.000	-2.478	2.310
	7	-.759	.613	1.000	-2.837	1.319
	8	-.675	.454	1.000	-2.215	.864
	10	.069	.540	1.000	-1.763	1.901
	11	1.078	.797	1.000	-1.625	3.781
	12	-.150	.852	1.000	-3.040	2.741
	1	-.381	.980	1.000	-3.705	2.943
	2	.571	.966	1.000	-2.703	3.845
	3	1.205	.986	1.000	-2.139	4.549
11	4	1.389	1.012	1.000	-2.043	4.821
	5	.400	.888	1.000	-2.609	3.409
	6	-.153	.759	1.000	-2.727	2.422
	7	-.828	.687	1.000	-3.156	1.501
	8	-.744	.583	1.000	-2.721	1.232
	9	-.069	.540	1.000	-1.901	1.763
	11	1.009	.640	1.000	-1.162	3.180
	12	-.219	.753	1.000	-2.774	2.336
	1	-1.390	1.085	1.000	-5.068	2.288
	2	-.438	1.036	1.000	-3.951	3.074
	3	.196	1.110	1.000	-3.566	3.959
	4	.380	1.117	1.000	-3.407	4.167
12	5	-.609	.951	1.000	-3.834	2.617
	6	-1.162	.949	1.000	-4.380	2.057
	7	-1.837	.911	.950	-4.924	1.251
	8	-1.753	.876	.956	-4.723	1.216
	9	-1.078	.797	1.000	-3.781	1.625
	10	-1.009	.640	1.000	-3.180	1.162
	12	-1.228	.625	.967	-3.348	.892
	1	-.162	1.059	1.000	-3.752	3.428
	2	.789	1.047	1.000	-2.761	4.340

3	1.424	1.112	1.000	-2.345	5.194
4	1.608	1.114	1.000	-2.169	5.385
5	.619	.972	1.000	-2.677	3.915
6	.066	.962	1.000	-3.197	3.329
7	-.609	.929	1.000	-3.758	2.541
8	-.525	.935	1.000	-3.696	2.645
9	.150	.852	1.000	-2.741	3.040
10	.219	.753	1.000	-2.336	2.774
11	1.228	.625	.967	-.892	3.348

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Compensation \* year

Measure: MEASURE\_1

Level of Compensation	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	47.458	1.347	44.808	50.108
	2	45.888	1.473	42.990	48.785
	3	44.944	1.577	41.842	48.045
	4	44.692	1.623	41.500	47.884
	5	45.308	1.558	42.245	48.372
	6	46.869	1.615	43.693	50.045
	7	46.953	1.720	43.571	50.335
	8	46.103	1.713	42.733	49.473
	9	45.869	1.666	42.593	49.146
	10	45.411	1.624	42.217	48.605
	11	45.561	1.683	42.251	48.870
	12	48.168	1.547	45.125	51.211
Medium	1	51.507	.959	49.620	53.394
	2	50.223	1.049	48.159	52.286
	3	49.976	1.123	47.768	52.185

High	4	49.678	1.156	47.405	51.951
	5	50.114	1.109	47.932	52.295
	6	51.640	1.150	49.378	53.901
	7	52.152	1.225	49.743	54.560
	8	52.038	1.220	49.638	54.438
	9	51.445	1.186	49.112	53.779
	10	51.697	1.156	49.422	53.971
	11	49.720	1.198	47.364	52.077
	12	50.796	1.102	48.629	52.963
	1	57.229	2.356	52.595	61.862
	2	57.229	2.576	52.163	62.295
	3	56.514	2.757	51.091	61.937
	4	56.514	2.838	50.933	62.095
	5	58.429	2.723	53.073	63.785
	6	57.000	2.823	51.447	62.553
	7	58.429	3.007	52.515	64.342
	8	59.143	2.996	53.251	65.035
	9	57.943	2.913	52.214	63.672
	10	57.943	2.839	52.358	63.527
	11	56.743	2.942	50.957	62.529
	12	56.743	2.705	51.423	62.063

### ***General Linear Model of Level of Compensation of Corporate Leaders for Product***

#### **Between-Subjects Factors**

		Value Label	N
Level of Compensation	1	Low	107
	2	Medium	211
	3	High	35

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	10330.332	11	939.121	11.121	.000	.031	1.000
	Greenhouse-Geisser	10330.332	3.625	2849.386	11.121	.000	.031	1.000
	Huynh-Feldt	10330.332	3.689	2800.282	11.121	.000	.031	1.000
	Lower-bound	10330.332	1.000	10330.332	11.121	.001	.031	.914
year * complevel	Sphericity Assumed	7384.804	22	335.673	3.975	.000	.022	1.000
	Greenhouse-Geisser	7384.804	7.251	1018.465	3.975	.000	.022	.988
	Huynh-Feldt	7384.804	7.378	1000.913	3.975	.000	.022	.989
	Lower-bound	7384.804	2.000	3692.402	3.975	.020	.022	.711
Error(year)	Sphericity Assumed	325130.225	3850	84.449				
	Greenhouse-Geisser	325130.225	1268.911	256.228				
	Huynh-Feldt	325130.225	1291.162	251.812				
	Lower-bound	325130.225	350.000	928.944				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	9795.274	1	9795.274	23.411	.000	.063	.998
	Quadratic	282.851	1	282.851	1.794	.181	.005	.267
	Cubic	6.183	1	6.183	.064	.800	.000	.057
year * complevel	Linear	6335.616	2	3167.808	7.571	.001	.041	.944
	Quadratic	448.440	2	224.220	1.422	.243	.008	.304
	Cubic	267.659	2	133.829	1.394	.249	.008	.299
Error(year)	Linear	146439.141	350	418.398				
	Quadratic	55176.823	350	157.648				
	Cubic	33595.213	350	95.986				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
complevel	34219.921	2	17109.961	7.550	.001	.041	.944
Error	793175.645	350	2266.216				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Level of Compensation

#### Estimates

Measure: MEASURE\_1

Level of Compensation	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	47.053	1.329	44.440	49.666
Medium	50.166	.946	48.305	52.027
High	57.402	2.323	52.834	61.971

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Compensation	(J) Level of Compensation	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-3.113	1.631	.162	-7.026	.800

Medium	High	-10.349(*)	2.676	.000	-16.770	-3.929
	Low	3.113	1.631	.162	-.800	7.026
High	High	-7.237(*)	2.508	.012	-13.254	-1.219
	Low	10.349(*)	2.676	.000	3.929	16.770
	Medium	7.237(*)	2.508	.012	1.219	13.254

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2851.660	2	1425.830	7.550	.001	.041	.944
Error	66097.970	350	188.851				

The F tests the effect of Level of Compensation. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	53.874	.982	51.942	55.806
2	54.005	1.053	51.934	56.076
3	53.924	1.037	51.885	55.963
4	53.181	1.088	51.041	55.322
5	52.479	1.051	50.412	54.545
6	51.894	1.069	49.792	53.996
7	51.388	1.132	49.162	53.614

8	51.004	1.156	48.730	53.277
9	50.263	1.170	47.961	52.564
10	50.354	1.196	48.001	52.706
11	48.553	1.247	46.101	51.006
12	47.567	1.262	45.084	50.049

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.131	.660	1.000	-2.368	2.106
	3	-.050	.748	1.000	-2.584	2.485
	4	.693	.891	1.000	-2.328	3.714
	5	1.395	.962	1.000	-1.867	4.658
	6	1.980	1.013	.969	-1.455	5.415
	7	2.486	1.099	.802	-1.239	6.212
	8	2.871	1.068	.393	-.751	6.492
	9	3.612	1.095	.069	-.102	7.325
	10	3.521	1.087	.083	-.164	7.206
	11	5.321(*)	1.200	.001	1.253	9.389
	12	6.307(*)	1.223	.000	2.160	10.455
2	1	.131	.660	1.000	-2.106	2.368
	3	.081	.501	1.000	-1.619	1.781
	4	.824	.783	1.000	-1.831	3.478
	5	1.526	.902	.998	-1.533	4.586
	6	2.111	.959	.850	-1.141	5.363
	7	2.617	1.054	.592	-.957	6.191
	8	3.001	1.043	.246	-.536	6.538
	9	3.742(*)	1.076	.037	.094	7.390
	10	3.651	1.089	.057	-.041	7.344

3	11	5.451(*)	1.200	.001	1.384	9.519
	12	6.438(*)	1.238	.000	2.239	10.637
	1	.050	.748	1.000	-2.485	2.584
	2	-.081	.501	1.000	-1.781	1.619
	4	.743	.646	1.000	-1.448	2.934
	5	1.445	.792	.991	-1.239	4.129
	6	2.030	.913	.834	-1.067	5.127
	7	2.536	1.019	.586	-.918	5.990
	8	2.920	.998	.215	-.465	6.306
	9	3.661(*)	1.051	.036	.097	7.225
	10	3.570	1.084	.070	-.106	7.247
	11	5.370(*)	1.172	.000	1.395	9.345
4	12	6.357(*)	1.199	.000	2.292	10.422
	1	-.693	.891	1.000	-3.714	2.328
	2	-.824	.783	1.000	-3.478	1.831
	3	-.743	.646	1.000	-2.934	1.448
	5	.702	.596	1.000	-1.319	2.723
	6	1.287	.788	.999	-1.385	3.960
	7	1.793	.898	.957	-1.252	4.838
	8	2.178	.927	.725	-.965	5.321
	9	2.918	.995	.210	-.455	6.292
	10	2.828	1.025	.332	-.646	6.301
	11	4.628(*)	1.120	.003	.830	8.425
	12	5.614(*)	1.142	.000	1.741	9.488
5	1	-1.395	.962	1.000	-4.658	1.867
	2	-1.526	.902	.998	-4.586	1.533
	3	-1.445	.792	.991	-4.129	1.239
	4	-.702	.596	1.000	-2.723	1.319
	6	.585	.573	1.000	-1.359	2.529
	7	1.091	.734	1.000	-1.397	3.579
	8	1.475	.789	.986	-1.201	4.152
	9	2.216	.879	.555	-.766	5.198
	10	2.125	.913	.745	-.970	5.220



6	11	3.925(*)	.994	.006	.555	7.295
	12	4.912(*)	1.026	.000	1.432	8.392
	1	-1.980	1.013	.969	-5.415	1.455
	2	-2.111	.959	.850	-5.363	1.141
	3	-2.030	.913	.834	-5.127	1.067
	4	-1.287	.788	.999	-3.960	1.385
	5	-.585	.573	1.000	-2.529	1.359
	7	.506	.487	1.000	-1.145	2.157
	8	.890	.608	1.000	-1.172	2.953
	9	1.631	.720	.799	-.809	4.072
	10	1.540	.762	.948	-1.042	4.123
	11	3.340(*)	.893	.014	.313	6.368
7	12	4.327(*)	.920	.000	1.209	7.445
	1	-2.486	1.099	.802	-6.212	1.239
	2	-2.617	1.054	.592	-6.191	.957
	3	-2.536	1.019	.586	-5.990	.918
	4	-1.793	.898	.957	-4.838	1.252
	5	-1.091	.734	1.000	-3.579	1.397
	6	-.506	.487	1.000	-2.157	1.145
	8	.384	.414	1.000	-1.020	1.788
	9	1.125	.611	.989	-.945	3.196
	10	1.034	.726	1.000	-1.428	3.497
	11	2.834	.863	.071	-.091	5.760
	12	3.821(*)	.901	.002	.767	6.875
8	1	-2.871	1.068	.393	-6.492	.751
	2	-3.001	1.043	.246	-6.538	.536
	3	-2.920	.998	.215	-6.306	.465
	4	-2.178	.927	.725	-5.321	.965
	5	-1.475	.789	.986	-4.152	1.201
	6	-.890	.608	1.000	-2.953	1.172
	7	-.384	.414	1.000	-1.788	1.020
	9	.741	.462	1.000	-.826	2.308
	10	.650	.626	1.000	-1.473	2.773

9	11	2.450	.795	.137	-.247	5.147
	12	3.437(*)	.853	.005	.543	6.331
	1	-3.612	1.095	.069	-7.325	.102
	2	-3.742(*)	1.076	.037	-7.390	-.094
	3	-3.661(*)	1.051	.036	-7.225	-.097
	4	-2.918	.995	.210	-6.292	.455
	5	-2.216	.879	.555	-5.198	.766
	6	-1.631	.720	.799	-4.072	.809
	7	-1.125	.611	.989	-3.196	.945
	8	-.741	.462	1.000	-2.308	.826
	10	-.091	.446	1.000	-1.602	1.420
	11	1.709	.643	.420	-.471	3.890
10	12	2.696(*)	.737	.019	.198	5.194
	1	-3.521	1.087	.083	-7.206	.164
	2	-3.651	1.089	.057	-7.344	.041
	3	-3.570	1.084	.070	-7.247	.106
	4	-2.828	1.025	.332	-6.301	.646
	5	-2.125	.913	.745	-5.220	.970
	6	-1.540	.762	.948	-4.123	1.042
	7	-1.034	.726	1.000	-3.497	1.428
	8	-.650	.626	1.000	-2.773	1.473
	9	.091	.446	1.000	-1.420	1.602
	11	1.800(*)	.509	.030	.074	3.526
	12	2.787(*)	.635	.001	.635	4.938
11	1	-5.321(*)	1.200	.001	-9.389	-1.253
	2	-5.451(*)	1.200	.001	-9.519	-1.384
	3	-5.370(*)	1.172	.000	-9.345	-1.395
	4	-4.628(*)	1.120	.003	-8.425	-.830
	5	-3.925(*)	.994	.006	-7.295	-.555
	6	-3.340(*)	.893	.014	-6.368	-.313
	7	-2.834	.863	.071	-5.760	.091
	8	-2.450	.795	.137	-5.147	.247
	9	-1.709	.643	.420	-3.890	.471

12	10	-1.800(*)	.509	.030	-3.526	-.074
	12	.987	.415	.697	-.420	2.393
	1	-6.307(*)	1.223	.000	-10.455	-2.160
	2	-6.438(*)	1.238	.000	-10.637	-2.239
	3	-6.357(*)	1.199	.000	-10.422	-2.292
	4	-5.614(*)	1.142	.000	-9.488	-1.741
	5	-4.912(*)	1.026	.000	-8.392	-1.432
	6	-4.327(*)	.920	.000	-7.445	-1.209
	7	-3.821(*)	.901	.002	-6.875	-.767
	8	-3.437(*)	.853	.005	-6.331	-.543
	9	-2.696(*)	.737	.019	-5.194	-.198
	10	-2.787(*)	.635	.001	-4.938	-.635
	11	-.987	.415	.697	-2.393	.420

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Compensation \* year

Measure: MEASURE\_1

Level of Compensation	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	50.907	1.379	48.193	53.620
	2	51.019	1.478	48.111	53.926
	3	51.832	1.456	48.968	54.695
	4	51.196	1.528	48.190	54.202
	5	49.224	1.475	46.323	52.126
	6	47.972	1.501	45.020	50.924
	7	46.897	1.589	43.771	50.023
	8	45.654	1.623	42.462	48.847
	9	44.841	1.643	41.609	48.073
	10	44.112	1.680	40.809	47.415
	11	41.159	1.751	37.716	44.602

Medium	12	39.822	1.772	36.337	43.308
	1	51.602	.982	49.670	53.534
	2	51.882	1.053	49.811	53.952
	3	51.654	1.037	49.615	53.693
	4	50.062	1.088	47.921	52.202
	5	50.469	1.051	48.403	52.535
	6	49.967	1.069	47.865	52.069
	7	50.066	1.132	47.840	52.292
	8	50.156	1.156	47.883	52.430
	9	50.118	1.170	47.817	52.420
	10	49.749	1.196	47.397	52.101
	11	48.673	1.247	46.221	51.125
High	12	47.592	1.262	45.110	50.075
	1	59.114	2.412	54.371	63.858
	2	59.114	2.585	54.030	64.198
	3	58.286	2.546	53.279	63.292
	4	58.286	2.672	53.030	63.541
	5	57.743	2.580	52.670	62.816
	6	57.743	2.624	52.582	62.904
	7	57.200	2.779	51.734	62.666
	8	57.200	2.838	51.618	62.782
	9	55.829	2.873	50.177	61.480
	10	57.200	2.937	51.424	62.976
	11	55.829	3.061	49.808	61.849
	12	55.286	3.099	49.191	61.381

## APPENDIX H

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Price Volatility

#### *General Linear Model of Level of Price Volatility for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Price Volatility Level	1	Low	86
	2	Medium	173
	3	High	86

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	21210.206	11	1928.201	19.391	.000	.054	1.000
	Greenhouse-Geisser	21210.206	4.228	5016.439	19.391	.000	.054	1.000
	Huynh-Feldt	21210.206	4.313	4918.082	19.391	.000	.054	1.000
	Lower-bound	21210.206	1.000	21210.206	19.391	.000	.054	.992
year * pvlevel	Sphericity Assumed	2868.730	22	130.397	1.311	.150	.008	.921
	Greenhouse-Geisser	2868.730	8.456	339.243	1.311	.230	.008	.628
	Huynh-Feldt	2868.730	8.625	332.591	1.311	.229	.008	.635
	Lower-bound	2868.730	2.000	1434.365	1.311	.271	.008	.283
Error(year)	Sphericity Assumed	374088.874	3762	99.439				
	Greenhouse-Geisser	374088.874	1446.024	258.702				
	Huynh-Feldt	374088.874	1474.943	253.629				
	Lower-bound	374088.874	342.000	1093.827				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	17787.754	1	17787.754	41.408	.000	.108	1.000
	Quadratic	592.953	1	592.953	3.692	.056	.011	.483
	Cubic	2000.658	1	2000.658	19.226	.000	.053	.992
year * pvlevel	Linear	1801.294	2	900.647	2.097	.124	.012	.430
	Quadratic	17.743	2	8.872	.055	.946	.000	.058
	Cubic	327.269	2	163.634	1.573	.209	.009	.333
Error(year)	Linear	146915.387	342	429.577				
	Quadratic	54931.210	342	160.618				
	Cubic	35588.016	342	104.059				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	9702.252	2	4851.126	2.316	.100	.013	.469
Error	716310.776	342	2094.476				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.605	1.425	45.803	51.407
Medium	50.963	1.004	48.988	52.939
High	47.428	1.425	44.626	50.230

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level (J) Price Volatility Level		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-2.359	1.743	.442	-6.541	1.824
	High	1.176	2.015	.915	-3.658	6.011
Medium	Low	2.359	1.743	.442	-1.824	6.541
	High	3.535	1.743	.124	-.647	7.718
High	Low	-1.176	2.015	.915	-6.011	3.658
	Medium	-3.535	1.743	.124	-7.718	.647

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	808.521	2	404.260	2.316	.100	.013	.469
Error	59692.565	342	174.540				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.293	.929	48.466	52.120
2	51.809	.983	49.876	53.741
3	52.970	1.098	50.811	55.129
4	50.955	.974	49.038	52.871
5	50.869	.982	48.938	52.800
6	49.342	.886	47.599	51.085
7	49.487	.920	47.678	51.296
8	47.647	.889	45.900	49.395
9	47.022	.903	45.246	48.797
10	46.047	.815	44.445	47.650
11	45.509	.811	43.914	47.105
12	46.035	.884	44.295	47.774

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.516	.483	.116	-3.155	.123
	3	-2.677(*)	.687	.008	-5.008	-.346
	4	-.662	.793	1.000	-3.351	2.027
	5	-.576	.895	1.000	-3.611	2.459
	6	.951	.909	1.000	-2.131	4.033
	7	.806	.916	1.000	-2.302	3.914



2	8	2.646	.924	.256	-.489	5.781
	9	3.271(*)	.918	.027	.157	6.386
	10	4.246(*)	.934	.000	1.079	7.412
	11	4.783(*)	.947	.000	1.572	7.995
	12	4.258(*)	.976	.001	.949	7.568
	1	1.516	.483	.116	-.123	3.155
	3	-1.161	.529	.854	-2.954	.632
	4	.854	.742	1.000	-1.662	3.370
	5	.940	.855	1.000	-1.959	3.838
	6	2.467	.907	.365	-.609	5.542
	7	2.322	.932	.585	-.840	5.484
	8	4.162(*)	.932	.001	1.000	7.324
3	9	4.787(*)	.938	.000	1.607	7.967
	10	5.762(*)	.957	.000	2.517	9.006
	11	6.299(*)	.972	.000	3.002	9.597
	12	5.774(*)	1.001	.000	2.380	9.168
	1	2.677(*)	.687	.008	.346	5.008
	2	1.161	.529	.854	-.632	2.954
	4	2.015	.657	.144	-.215	4.245
	5	2.101	.839	.572	-.746	4.948
	6	3.628(*)	.910	.005	.542	6.714
	7	3.483(*)	.940	.016	.294	6.672
	8	5.323(*)	.946	.000	2.115	8.530
	9	5.948(*)	.956	.000	2.706	9.191
4	10	6.923(*)	.995	.000	3.549	10.296
	11	7.460(*)	1.015	.000	4.018	10.903
	12	6.935(*)	1.055	.000	3.356	10.514
	1	.662	.793	1.000	-2.027	3.351
	2	-.854	.742	1.000	-3.370	1.662
	3	-2.015	.657	.144	-4.245	.215
	5	.086	.620	1.000	-2.017	2.189
	6	1.613	.774	.922	-1.012	4.238
	7	1.468	.818	.994	-1.307	4.243

5	8	3.308(*)	.850	.008	.425	6.191
	9	3.933(*)	.850	.000	1.049	6.817
	10	4.908(*)	.880	.000	1.923	7.892
	11	5.445(*)	.903	.000	2.383	8.508
	12	4.920(*)	.955	.000	1.683	8.158
	1	.576	.895	1.000	-2.459	3.611
	2	-.940	.855	1.000	-3.838	1.959
	3	-2.101	.839	.572	-4.948	.746
	4	-.086	.620	1.000	-2.189	2.017
	6	1.527	.626	.635	-.595	3.649
	7	1.382	.745	.988	-1.144	3.908
	8	3.222(*)	.820	.007	.441	6.003
6	9	3.847(*)	.876	.001	.878	6.817
	10	4.822(*)	.881	.000	1.833	7.811
	11	5.360(*)	.887	.000	2.350	8.369
	12	4.834(*)	.910	.000	1.748	7.921
	1	-.951	.909	1.000	-4.033	2.131
	2	-2.467	.907	.365	-5.542	.609
	3	-3.628(*)	.910	.005	-6.714	-.542
	4	-1.613	.774	.922	-4.238	1.012
	5	-1.527	.626	.635	-3.649	.595
	7	-.145	.543	1.000	-1.988	1.697
	8	1.695	.673	.556	-.587	3.977
	9	2.320	.756	.141	-.242	4.883
7	10	3.295(*)	.800	.003	.581	6.009
	11	3.832(*)	.805	.000	1.102	6.563
	12	3.307(*)	.798	.003	.601	6.013
	1	-.806	.916	1.000	-3.914	2.302
	2	-2.322	.932	.585	-5.484	.840
	3	-3.483(*)	.940	.016	-6.672	-.294
	4	-1.468	.818	.994	-4.243	1.307
	5	-1.382	.745	.988	-3.908	1.144
	6	.145	.543	1.000	-1.697	1.988

8	8	1.840	.558	.069	-.052	3.732
	9	2.465(*)	.651	.012	.257	4.674
	10	3.440(*)	.719	.000	1.001	5.879
	11	3.978(*)	.743	.000	1.458	6.497
	12	3.452(*)	.707	.000	1.055	5.850
	1	-2.646	.924	.256	-5.781	.489
	2	-4.162(*)	.932	.001	-7.324	-1.000
	3	-5.323(*)	.946	.000	-8.530	-2.115
	4	-3.308(*)	.850	.008	-6.191	-.425
	5	-3.222(*)	.820	.007	-6.003	-.441
	6	-1.695	.673	.556	-3.977	.587
	7	-1.840	.558	.069	-3.732	.052
9	9	.626	.381	.999	-.667	1.919
	10	1.600	.555	.241	-.281	3.481
	11	2.138(*)	.585	.020	.152	4.123
	12	1.612	.590	.356	-.390	3.615
	1	-3.271(*)	.918	.027	-6.386	-.157
	2	-4.787(*)	.938	.000	-7.967	-1.607
	3	-5.948(*)	.956	.000	-9.191	-2.706
	4	-3.933(*)	.850	.000	-6.817	-1.049
	5	-3.847(*)	.876	.001	-6.817	-.878
	6	-2.320	.756	.141	-4.883	.242
	7	-2.465(*)	.651	.012	-4.674	-.257
	8	-.626	.381	.999	-1.919	.667
10	10	.974	.464	.914	-.600	2.548
	11	1.512	.559	.376	-.382	3.406
	12	.987	.580	.998	-.979	2.953
	1	-4.246(*)	.934	.000	-7.412	-1.079
	2	-5.762(*)	.957	.000	-9.006	-2.517
	3	-6.923(*)	.995	.000	-10.296	-3.549
	4	-4.908(*)	.880	.000	-7.892	-1.923
	5	-4.822(*)	.881	.000	-7.811	-1.833
	6	-3.295(*)	.800	.003	-6.009	-.581

11	7	-3.440(*)	.719	.000	-5.879	-1.001
	8	-1.600	.555	.241	-3.481	.281
	9	-.974	.464	.914	-2.548	.600
	11	.538	.327	.999	-.570	1.646
	12	.012	.522	1.000	-1.758	1.783
	1	-4.783(*)	.947	.000	-7.995	-1.572
	2	-6.299(*)	.972	.000	-9.597	-3.002
	3	-7.460(*)	1.015	.000	-10.903	-4.018
	4	-5.445(*)	.903	.000	-8.508	-2.383
	5	-5.360(*)	.887	.000	-8.369	-2.350
	6	-3.832(*)	.805	.000	-6.563	-1.102
12	7	-3.978(*)	.743	.000	-6.497	-1.458
	8	-2.138(*)	.585	.020	-4.123	-.152
	9	-1.512	.559	.376	-3.406	.382
	10	-.538	.327	.999	-1.646	.570
	12	-.525	.398	1.000	-1.875	.824
	1	-4.258(*)	.976	.001	-7.568	-.949
	2	-5.774(*)	1.001	.000	-9.168	-2.380
	3	-6.935(*)	1.055	.000	-10.514	-3.356
	4	-4.920(*)	.955	.000	-8.158	-1.683
	5	-4.834(*)	.910	.000	-7.921	-1.748
	6	-3.307(*)	.798	.003	-6.013	-.601
	7	-3.452(*)	.707	.000	-5.850	-1.055
	8	-1.612	.590	.356	-3.615	.390
	9	-.987	.580	.998	-2.953	.979
	10	-.012	.522	1.000	-1.783	1.758
	11	.525	.398	1.000	-.824	1.875

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	49.756	1.763	46.288	53.224
	2	53.523	1.865	49.854	57.192
	3	54.558	2.084	50.459	58.657
	4	51.209	1.850	47.571	54.848
	5	50.488	1.864	46.822	54.155
	6	49.244	1.683	45.934	52.554
	7	49.465	1.746	46.030	52.900
	8	46.291	1.687	42.973	49.608
	9	45.791	1.714	42.419	49.162
	10	44.628	1.546	41.586	47.670
	11	43.512	1.540	40.483	46.540
	12	44.791	1.679	41.488	48.093
Medium	1	52.844	1.243	50.399	55.289
	2	53.624	1.315	51.037	56.211
	3	54.503	1.469	51.613	57.393
	4	53.260	1.304	50.695	55.826
	5	52.584	1.314	49.999	55.169
	6	51.538	1.186	49.204	53.871
	7	51.647	1.231	49.226	54.069
	8	50.000	1.189	47.661	52.339
	9	48.844	1.208	46.467	51.221
	10	47.595	1.090	45.451	49.740
	11	47.098	1.085	44.963	49.233
	12	48.023	1.184	45.695	50.352
High	1	48.279	1.763	44.811	51.747
	2	48.279	1.865	44.610	51.948
	3	49.849	2.084	45.750	53.948
	4	48.395	1.850	44.757	52.034
	5	49.535	1.864	45.868	53.202
	6	47.244	1.683	43.934	50.554

7	47.349	1.746	43.914	50.783
8	46.651	1.687	43.333	49.969
9	46.430	1.714	43.059	49.802
10	45.919	1.546	42.877	48.960
11	45.919	1.540	42.890	48.947
12	45.291	1.679	41.988	48.593

### ***General Linear Model of Level of Price Volatility for Diversity***

#### **Between-Subjects Factors**

	Value Label	N
Price Volatility Level 1	Low	86
2	Medium	173
3	High	86

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	48519.776	11	4410.889	52.752	.000	.134	1.000
	Greenhouse-Geisser	48519.776	4.312	11253.298	52.752	.000	.134	1.000
	Huynh-Feldt	48519.776	4.399	11029.636	52.752	.000	.134	1.000
	Lower-bound	48519.776	1.000	48519.776	52.752	.000	.134	1.000
year * pvlevel	Sphericity Assumed	1402.389	22	63.745	.762	.775	.004	.651
	Greenhouse-Geisser	1402.389	8.623	162.630	.762	.646	.004	.377
	Huynh-Feldt	1402.389	8.798	159.397	.762	.649	.004	.381
	Lower-bound	1402.389	2.000	701.194	.762	.467	.004	.179

Error(year)	Sphericity Assumed	314559.121	3762	83.615				
	Greenhouse-Geisser	314559.121	1474.569	213.323				
	Huynh-Feldt	314559.121	1504.471	209.083				
	Lower-bound	314559.121	342.000	919.764				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	46720.425	1	46720.425	132.804	.000	.280	1.000
	Quadratic	1223.816	1	1223.816	7.293	.007	.021	.768
	Cubic	158.093	1	158.093	2.156	.143	.006	.310
year * pvlevel	Linear	831.164	2	415.582	1.181	.308	.007	.258
	Quadratic	93.935	2	46.967	.280	.756	.002	.094
	Cubic	18.136	2	9.068	.124	.884	.001	.069
Error(year)	Linear	120315.344	342	351.799				
	Quadratic	57386.967	342	167.798				
	Cubic	25072.912	342	73.313				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	3611.860	2	1805.930	.844	.431	.005	.194
Error	732153.488	342	2140.800				

a. Computed using alpha = .05

## Estimated Marginal Means

## 1. Price Volatility Level

### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	51.664	1.440	48.831	54.497
Medium	49.590	1.015	47.593	51.587
High	49.364	1.440	46.531	52.197

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level	(J) Price Volatility Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	2.074	1.762	.561	-2.155	6.302
	High	2.299	2.037	.594	-2.588	7.187
Medium	Low	-2.074	1.762	.561	-6.302	2.155
	High	.226	1.762	.999	-4.003	4.454
High	Low	-2.299	2.037	.594	-7.187	2.588
	Medium	-.226	1.762	.999	-4.454	4.003

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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Contrast	300.988	2	150.494	.844	.431	.005	.194
Error	61012.791	342	178.400				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.099	.533	43.049	45.148
2	44.956	.603	43.770	46.142
3	45.658	.678	44.324	46.991
4	48.409	.843	46.750	50.067
5	49.273	.863	47.575	50.971
6	50.062	.943	48.208	51.916
7	51.463	.965	49.565	53.362
8	52.122	.989	50.178	54.067
9	53.450	1.045	51.394	55.506
10	54.026	1.058	51.944	56.108
11	54.463	1.093	52.312	56.613
12	54.492	1.051	52.426	56.559

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	-.857	.253	.051	-1.715	.001
	3	-1.559(*)	.399	.007	-2.913	-.205
	4	-4.310(*)	.619	.000	-6.408	-2.212
	5	-5.174(*)	.649	.000	-7.374	-2.975
	6	-5.963(*)	.784	.000	-8.622	-3.305
	7	-7.365(*)	.823	.000	-10.157	-4.572
	8	-8.024(*)	.846	.000	-10.894	-5.154
	9	-9.351(*)	.912	.000	-12.444	-6.259
	10	-9.928(*)	.906	.000	-13.001	-6.854
	11	-10.364(*)	.927	.000	-13.508	-7.220
	12	-10.394(*)	.898	.000	-13.441	-7.347
2	1	.857	.253	.051	-.001	1.715
	3	-.702	.314	.823	-1.766	.362
	4	-3.453(*)	.572	.000	-5.392	-1.514
	5	-4.317(*)	.608	.000	-6.379	-2.255
	6	-5.106(*)	.731	.000	-7.585	-2.627
	7	-6.507(*)	.764	.000	-9.099	-3.916
	8	-7.167(*)	.779	.000	-9.809	-4.524
	9	-8.494(*)	.859	.000	-11.407	-5.581
	10	-9.070(*)	.850	.000	-11.952	-6.188
	11	-9.507(*)	.869	.000	-12.454	-6.559
	12	-9.537(*)	.846	.000	-12.405	-6.668
3	1	1.559(*)	.399	.007	.205	2.913
	2	.702	.314	.823	-.362	1.766
	4	-2.751(*)	.518	.000	-4.509	-.993
	5	-3.615(*)	.597	.000	-5.640	-1.591
	6	-4.404(*)	.731	.000	-6.882	-1.926
	7	-5.805(*)	.774	.000	-8.430	-3.180
	8	-6.465(*)	.763	.000	-9.051	-3.878
	9	-7.792(*)	.846	.000	-10.660	-4.924
	10	-8.369(*)	.853	.000	-11.260	-5.477

4	11	-8.805(*)	.850	.000	-11.686	-5.924
	12	-8.835(*)	.834	.000	-11.663	-6.006
	1	4.310(*)	.619	.000	2.212	6.408
	2	3.453(*)	.572	.000	1.514	5.392
	3	2.751(*)	.518	.000	.993	4.509
	5	-.864	.469	.989	-2.453	.725
	6	-1.653	.651	.534	-3.860	.554
	7	-3.054(*)	.750	.004	-5.599	-.510
	8	-3.714(*)	.735	.000	-6.205	-1.222
	9	-5.041(*)	.825	.000	-7.840	-2.242
	10	-5.617(*)	.866	.000	-8.555	-2.680
	11	-6.054(*)	.882	.000	-9.046	-3.061
5	12	-6.084(*)	.862	.000	-9.008	-3.160
	1	5.174(*)	.649	.000	2.975	7.374
	2	4.317(*)	.608	.000	2.255	6.379
	3	3.615(*)	.597	.000	1.591	5.640
	4	.864	.469	.989	-.725	2.453
	6	-.789	.520	1.000	-2.552	.974
	7	-2.190(*)	.645	.049	-4.378	-.002
	8	-2.850(*)	.671	.002	-5.124	-.575
	9	-4.177(*)	.749	.000	-6.718	-1.636
	10	-4.753(*)	.827	.000	-7.560	-1.947
	11	-5.190(*)	.850	.000	-8.074	-2.306
	12	-5.220(*)	.825	.000	-8.016	-2.423
6	1	5.963(*)	.784	.000	3.305	8.622
	2	5.106(*)	.731	.000	2.627	7.585
	3	4.404(*)	.731	.000	1.926	6.882
	4	1.653	.651	.534	-.554	3.860
	5	.789	.520	1.000	-.974	2.552
	7	-1.401	.481	.221	-3.031	.229
	8	-2.060	.625	.069	-4.180	.060
	9	-3.388(*)	.771	.001	-6.001	-.775
	10	-3.964(*)	.867	.000	-6.904	-1.024

7	11	-4.401(*)	.907	.000	-7.476	-1.326
	12	-4.431(*)	.857	.000	-7.336	-1.525
	1	7.365(*)	.823	.000	4.572	10.157
	2	6.507(*)	.764	.000	3.916	9.099
	3	5.805(*)	.774	.000	3.180	8.430
	4	3.054(*)	.750	.004	.510	5.599
	5	2.190(*)	.645	.049	.002	4.378
	6	1.401	.481	.221	-.229	3.031
	8	-.659	.498	1.000	-2.349	1.030
	9	-1.987	.690	.243	-4.325	.352
	10	-2.563	.805	.100	-5.294	.168
	11	-3.000(*)	.855	.033	-5.898	-.101
8	12	-3.029(*)	.805	.013	-5.759	-.300
	1	8.024(*)	.846	.000	5.154	10.894
	2	7.167(*)	.779	.000	4.524	9.809
	3	6.465(*)	.763	.000	3.878	9.051
	4	3.714(*)	.735	.000	1.222	6.205
	5	2.850(*)	.671	.002	.575	5.124
	6	2.060	.625	.069	-.060	4.180
	7	.659	.498	1.000	-1.030	2.349
	9	-1.328	.523	.535	-3.100	.445
	10	-1.904	.691	.335	-4.246	.439
	11	-2.340	.748	.118	-4.876	.195
	12	-2.370	.728	.079	-4.840	.100
9	1	9.351(*)	.912	.000	6.259	12.444
	2	8.494(*)	.859	.000	5.581	11.407
	3	7.792(*)	.846	.000	4.924	10.660
	4	5.041(*)	.825	.000	2.242	7.840
	5	4.177(*)	.749	.000	1.636	6.718
	6	3.388(*)	.771	.001	.775	6.001
	7	1.987	.690	.243	-.352	4.325
	8	1.328	.523	.535	-.445	3.100
	10	-.576	.569	1.000	-2.505	1.352

10	11	-1.013	.692	1.000	-3.359	1.333
	12	-1.043	.664	1.000	-3.294	1.209
	1	9.928(*)	.906	.000	6.854	13.001
	2	9.070(*)	.850	.000	6.188	11.952
	3	8.369(*)	.853	.000	5.477	11.260
	4	5.617(*)	.866	.000	2.680	8.555
	5	4.753(*)	.827	.000	1.947	7.560
	6	3.964(*)	.867	.000	1.024	6.904
	7	2.563	.805	.100	-.168	5.294
	8	1.904	.691	.335	-.439	4.246
	9	.576	.569	1.000	-1.352	2.505
	11	-.436	.489	1.000	-2.094	1.221
11	12	-.466	.590	1.000	-2.467	1.535
	1	10.364(*)	.927	.000	7.220	13.508
	2	9.507(*)	.869	.000	6.559	12.454
	3	8.805(*)	.850	.000	5.924	11.686
	4	6.054(*)	.882	.000	3.061	9.046
	5	5.190(*)	.850	.000	2.306	8.074
	6	4.401(*)	.907	.000	1.326	7.476
	7	3.000(*)	.855	.033	.101	5.898
	8	2.340	.748	.118	-.195	4.876
	9	1.013	.692	1.000	-1.333	3.359
	10	.436	.489	1.000	-1.221	2.094
	12	-.030	.420	1.000	-1.454	1.394
12	1	10.394(*)	.898	.000	7.347	13.441
	2	9.537(*)	.846	.000	6.668	12.405
	3	8.835(*)	.834	.000	6.006	11.663
	4	6.084(*)	.862	.000	3.160	9.008
	5	5.220(*)	.825	.000	2.423	8.016
	6	4.431(*)	.857	.000	1.525	7.336
	7	3.029(*)	.805	.013	.300	5.759
	8	2.370	.728	.079	-.100	4.840
	9	1.043	.664	1.000	-1.209	3.294

10	.466	.590	1.000	-1.535	2.467
11	.030	.420	1.000	-1.394	1.454

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	45.070	1.013	43.078	47.062
	2	46.058	1.145	43.806	48.310
	3	46.198	1.287	43.666	48.729
	4	49.733	1.601	46.584	52.881
	5	50.093	1.639	46.869	53.317
	6	50.942	1.790	47.422	54.462
	7	53.163	1.832	49.558	56.767
	8	54.047	1.877	50.355	57.738
	9	54.733	1.984	50.830	58.636
	10	55.953	2.009	52.001	59.906
	11	56.849	2.076	52.766	60.932
	12	57.128	1.995	53.204	61.052
Medium	1	44.110	.714	42.705	45.514
	2	44.751	.807	43.164	46.339
	3	45.647	.907	43.863	47.432
	4	48.064	1.129	45.844	50.283
	5	49.225	1.156	46.952	51.499
	6	50.023	1.262	47.541	52.505
	7	51.017	1.292	48.476	53.559
	8	51.832	1.323	49.230	54.435
	9	51.838	1.399	49.086	54.590
	10	52.462	1.417	49.676	55.249

High	11	53.237	1.464	50.358	56.116
	12	52.873	1.407	50.106	55.639
	1	43.116	1.013	41.124	45.108
	2	44.058	1.145	41.806	46.310
	3	45.128	1.287	42.597	47.659
	4	47.430	1.601	44.282	50.578
	5	48.500	1.639	45.276	51.724
	6	49.221	1.790	45.701	52.741
	7	50.209	1.832	46.605	53.814
	8	50.488	1.877	46.797	54.180
	9	53.779	1.984	49.876	57.682
	10	53.663	2.009	49.710	57.615
	11	53.302	2.076	49.219	57.385
	12	53.477	1.995	49.553	57.401

### ***General Linear Model of Level of Price Volatility for Employee Relations***

#### **Between-Subjects Factors**

	Value Label	N
Price Volatility Level	1 Low	86
	2 Medium	173
	3 High	86

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year Sphericity Assumed	10946.004	11	995.091	9.224	.000	.026	1.000

year * pvlevel	Greenhouse-Geisser	10946.004	3.851	2842.362	9.224	.000	.026	.999
	Huynh-Feldt	10946.004	3.923	2790.118	9.224	.000	.026	.999
	Lower-bound	10946.004	1.000	10946.004	9.224	.003	.026	.857
	Sphericity Assumed	2984.382	22	135.654	1.257	.188	.007	.907
	Greenhouse-Geisser	2984.382	7.702	387.479	1.257	.264	.007	.576
	Huynh-Feldt	2984.382	7.846	380.357	1.257	.263	.007	.582
	Lower-bound	2984.382	2.000	1492.191	1.257	.286	.007	.273
Error(year)	Sphericity Assumed	405849.573	3762	107.881				
	Greenhouse-Geisser	405849.573	1317.050	308.150				
	Huynh-Feldt	405849.573	1341.711	302.486				
	Lower-bound	405849.573	342.000	1186.695				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6304.796	1	6304.796	12.530	.000	.035	.942
	Quadratic	3472.155	1	3472.155	18.031	.000	.050	.989
	Cubic	68.854	1	68.854	.578	.447	.002	.118
year * pvlevel	Linear	157.828	2	78.914	.157	.855	.001	.074
	Quadratic	472.963	2	236.482	1.228	.294	.007	.267
	Cubic	1104.112	2	552.056	4.638	.010	.026	.780
Error(year)	Linear	172079.767	342	503.157				
	Quadratic	65858.962	342	192.570				
	Cubic	40706.130	342	119.024				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average



Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	4464.356	2	2232.178	1.088	.338	.006	.241
Error	701841.440	342	2052.168				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

#### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.302	1.410	45.529	51.076
Medium	49.941	.994	47.985	51.896
High	51.234	1.410	48.460	54.007

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level	(J) Price Volatility Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.638	1.725	.716	-5.779	2.502
	High	-2.931	1.994	.370	-7.716	1.854
Medium	Low	1.638	1.725	.716	-2.502	5.779
	High	-1.293	1.725	.837	-5.433	2.847
High	Low	2.931	1.994	.370	-1.854	7.716
	Medium	1.293	1.725	.837	-2.847	5.433

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	372.030	2	186.015	1.088	.338	.006	.241
Error	58486.787	342	171.014				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	45.512	.688	44.158	46.865
2	47.725	.794	46.163	49.287
3	48.530	.827	46.904	50.157
4	50.079	.879	48.349	51.809
5	50.928	.926	49.107	52.750
6	49.518	.880	47.788	51.248
7	50.545	.960	48.658	52.433
8	51.281	1.040	49.235	53.326
9	51.173	1.033	49.141	53.205
10	51.835	1.029	49.811	53.859
11	50.628	1.021	48.619	52.637
12	50.153	1.042	48.102	52.203

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.213(*)	.542	.004	-4.052	-.374
	3	-3.019(*)	.631	.000	-5.159	-.879
	4	-4.567(*)	.822	.000	-7.355	-1.779
	5	-5.417(*)	.833	.000	-8.241	-2.593
	6	-4.006(*)	.815	.000	-6.770	-1.242
	7	-5.034(*)	.879	.000	-8.016	-2.052
	8	-5.769(*)	.988	.000	-9.121	-2.417
	9	-5.661(*)	.983	.000	-8.996	-2.326
	10	-6.323(*)	1.039	.000	-9.848	-2.798
	11	-5.116(*)	1.047	.000	-8.668	-1.565
	12	-4.641(*)	1.068	.001	-8.264	-1.018
2	1	2.213(*)	.542	.004	.374	4.052
	3	-.805	.494	.999	-2.480	.869
	4	-2.354	.753	.119	-4.908	.200
	5	-3.203(*)	.796	.005	-5.904	-.503
	6	-1.793	.804	.828	-4.518	.933
	7	-2.820	.872	.085	-5.779	.138
	8	-3.556(*)	.979	.021	-6.874	-.237
	9	-3.448(*)	.978	.031	-6.766	-.130
	10	-4.110(*)	1.031	.005	-7.608	-.612
	11	-2.903	1.045	.317	-6.446	.640
	12	-2.428	1.069	.795	-6.053	1.197
3	1	3.019(*)	.631	.000	.879	5.159
	2	.805	.494	.999	-.869	2.480
	4	-1.548	.613	.547	-3.626	.529
	5	-2.398	.746	.090	-4.929	.133

4	6	-.987	.803	1.000	-3.710	1.735
	7	-2.015	.847	.698	-4.888	.859
	8	-2.750	.943	.221	-5.948	.448
	9	-2.643	.925	.260	-5.781	.496
	10	-3.304(*)	.960	.042	-6.559	-.050
	11	-2.098	.976	.886	-5.407	1.212
	12	-1.622	.999	.999	-5.009	1.764
	1	4.567(*)	.822	.000	1.779	7.355
	2	2.354	.753	.119	-.200	4.908
	3	1.548	.613	.547	-.529	3.626
	5	-.850	.558	1.000	-2.743	1.044
	6	.561	.783	1.000	-2.095	3.217
5	7	-.466	.836	1.000	-3.303	2.370
	8	-1.202	.932	1.000	-4.363	1.960
	9	-1.094	.929	1.000	-4.245	2.057
	10	-1.756	1.000	.996	-5.146	1.634
	11	-.549	1.012	1.000	-3.980	2.882
	12	-.074	1.037	1.000	-3.590	3.442
	1	5.417(*)	.833	.000	2.593	8.241
	2	3.203(*)	.796	.005	.503	5.904
	3	2.398	.746	.090	-.133	4.929
	4	.850	.558	1.000	-1.044	2.743
	6	1.411	.637	.840	-.749	3.571
	7	.383	.762	1.000	-2.202	2.968
6	8	-.352	.915	1.000	-3.456	2.752
	9	-.245	.912	1.000	-3.339	2.850
	10	-.906	1.016	1.000	-4.352	2.539
	11	.300	1.039	1.000	-3.224	3.825
	12	.776	1.078	1.000	-2.880	4.431
	1	4.006(*)	.815	.000	1.242	6.770
	2	1.793	.804	.828	-.933	4.518
	3	.987	.803	1.000	-1.735	3.710
	4	-.561	.783	1.000	-3.217	2.095

7	5	-1.411	.637	.840	-3.571	.749
	7	-1.028	.476	.878	-2.641	.585
	8	-1.763	.681	.485	-4.071	.545
	9	-1.655	.727	.791	-4.121	.810
	10	-2.317	.850	.361	-5.201	.567
	11	-1.110	.904	1.000	-4.177	1.956
	12	-.635	.935	1.000	-3.805	2.535
	1	5.034(*)	.879	.000	2.052	8.016
	2	2.820	.872	.085	-.138	5.779
	3	2.015	.847	.698	-.859	4.888
	4	.466	.836	1.000	-2.370	3.303
	5	-.383	.762	1.000	-2.968	2.202
8	6	1.028	.476	.878	-.585	2.641
	8	-.735	.534	1.000	-2.546	1.075
	9	-.628	.620	1.000	-2.729	1.473
	10	-1.290	.781	.999	-3.939	1.360
	11	-.083	.848	1.000	-2.958	2.793
	12	.393	.895	1.000	-2.642	3.427
	1	5.769(*)	.988	.000	2.417	9.121
	2	3.556(*)	.979	.021	.237	6.874
	3	2.750	.943	.221	-.448	5.948
	4	1.202	.932	1.000	-1.960	4.363
	5	.352	.915	1.000	-2.752	3.456
	6	1.763	.681	.485	-.545	4.071
9	7	.735	.534	1.000	-1.075	2.546
	9	.108	.423	1.000	-1.327	1.542
	10	-.554	.640	1.000	-2.724	1.616
	11	.652	.714	1.000	-1.770	3.074
	12	1.128	.772	1.000	-1.489	3.745
	1	5.661(*)	.983	.000	2.326	8.996
	2	3.448(*)	.978	.031	.130	6.766
	3	2.643	.925	.260	-.496	5.781
	4	1.094	.929	1.000	-2.057	4.245

10	5	.245	.912	1.000	-2.850	3.339
	6	1.655	.727	.791	-.810	4.121
	7	.628	.620	1.000	-1.473	2.729
	8	-.108	.423	1.000	-1.542	1.327
	10	-.662	.538	1.000	-2.487	1.163
	11	.545	.639	1.000	-1.622	2.712
	12	1.020	.705	1.000	-1.369	3.410
	1	6.323(*)	1.039	.000	2.798	9.848
	2	4.110(*)	1.031	.005	.612	7.608
	3	3.304(*)	.960	.042	.050	6.559
	4	1.756	1.000	.996	-1.634	5.146
	5	.906	1.016	1.000	-2.539	4.352
11	6	2.317	.850	.361	-.567	5.201
	7	1.290	.781	.999	-1.360	3.939
	8	.554	.640	1.000	-1.616	2.724
	9	.662	.538	1.000	-1.163	2.487
	11	1.207	.389	.127	-.111	2.525
	12	1.682	.502	.057	-.020	3.384
	1	5.116(*)	1.047	.000	1.565	8.668
	2	2.903	1.045	.317	-.640	6.446
	3	2.098	.976	.886	-1.212	5.407
	4	.549	1.012	1.000	-2.882	3.980
	5	-.300	1.039	1.000	-3.825	3.224
	6	1.110	.904	1.000	-1.956	4.177
12	7	.083	.848	1.000	-2.793	2.958
	8	-.652	.714	1.000	-3.074	1.770
	9	-.545	.639	1.000	-2.712	1.622
	10	-1.207	.389	.127	-2.525	.111
	12	.475	.313	1.000	-.585	1.536
	1	4.641(*)	1.068	.001	1.018	8.264
	2	2.428	1.069	.795	-1.197	6.053
	3	1.622	.999	.999	-1.764	5.009
	4	.074	1.037	1.000	-3.442	3.590

5	-.776	1.078	1.000	-4.431	2.880
6	.635	.935	1.000	-2.535	3.805
7	-.393	.895	1.000	-3.427	2.642
8	-1.128	.772	1.000	-3.745	1.489
9	-1.020	.705	1.000	-3.410	1.369
10	-1.682	.502	.057	-3.384	.020
11	-.475	.313	1.000	-1.536	.585

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	43.302	1.307	40.732	45.872
	2	46.558	1.507	43.593	49.523
	3	48.140	1.570	45.052	51.227
	4	50.744	1.670	47.460	54.028
	5	49.814	1.758	46.356	53.271
	6	46.186	1.670	42.902	49.470
	7	47.860	1.822	44.277	51.444
	8	48.977	1.974	45.094	52.860
	9	47.860	1.961	44.004	51.717
	10	50.372	1.953	46.530	54.214
	11	50.000	1.939	46.186	53.814
	12	49.814	1.979	45.922	53.706
Medium	1	46.023	.921	44.211	47.835
	2	47.919	1.063	45.829	50.009
	3	48.289	1.107	46.112	50.466
	4	49.306	1.177	46.991	51.622
	5	50.925	1.239	48.487	53.363

High	6	50.879	1.177	48.563	53.194
	7	51.624	1.285	49.098	54.151
	8	52.237	1.392	49.499	54.975
	9	51.728	1.383	49.009	54.448
	10	51.214	1.377	48.505	53.923
	11	49.919	1.367	47.230	52.608
	12	49.225	1.395	46.481	51.970
	1	47.209	1.307	44.639	49.779
	2	48.698	1.507	45.733	51.662
	3	49.163	1.570	46.075	52.250
	4	50.186	1.670	46.902	53.470
	5	52.047	1.758	48.589	55.504
	6	51.488	1.670	48.204	54.773
	7	52.151	1.822	48.568	55.735
	8	52.628	1.974	48.745	56.511
	9	53.930	1.961	50.073	57.787
	10	53.919	1.953	50.077	57.760
	11	51.965	1.939	48.151	55.779
	12	51.419	1.979	47.526	55.311

### ***General Linear Model of Level of Price Volatility for Environment***

#### **Between-Subjects Factors**

		Value Label	N
Price Volatility Level	1	Low	86
	2	Medium	173
	3	High	86

#### **Tests of Within-Subjects Effects**



Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2115.411	11	192.310	2.310	.008	.007	.952
	Greenhouse-Geisser	2115.411	4.977	425.080	2.310	.042	.007	.747
	Huynh-Feldt	2115.411	5.088	415.736	2.310	.041	.007	.754
	Lower-bound	2115.411	1.000	2115.411	2.310	.129	.007	.329
year * pvlevel	Sphericity Assumed	990.410	22	45.019	.541	.959	.003	.462
	Greenhouse-Geisser	990.410	9.953	99.509	.541	.861	.003	.288
	Huynh-Feldt	990.410	10.177	97.321	.541	.865	.003	.291
	Lower-bound	990.410	2.000	495.205	.541	.583	.003	.139
Error(year)	Sphericity Assumed	313183.791	3762	83.249				
	Greenhouse-Geisser	313183.791	1701.965	184.013				
	Huynh-Feldt	313183.791	1740.217	179.968				
	Lower-bound	313183.791	342.000	915.742				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	55.547	1	55.547	.189	.664	.001	.072
	Quadratic	.033	1	.033	.000	.989	.000	.050
	Cubic	529.906	1	529.906	4.529	.034	.013	.564
year * pvlevel	Linear	15.290	2	7.645	.026	.974	.000	.054
	Quadratic	177.751	2	88.875	.542	.582	.003	.139
	Cubic	155.876	2	77.938	.666	.514	.004	.162
Error(year)	Linear	100302.629	342	293.283				
	Quadratic	56044.479	342	163.873				
	Cubic	40011.594	342	116.993				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	20586.497	2	10293.248	4.199	.016	.024	.736
Error	838449.036	342	2451.605				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

#### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	46.934	1.541	43.902	49.966
Medium	49.847	1.087	47.710	51.985
High	53.241	1.541	50.210	56.273

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Price Volatility Level	(J) Price Volatility Level				Upper Bound	Lower Bound
Low	Medium	-2.913	1.886	.326	-7.438	1.612

Medium	High	-6.307(*)	2.180	.012	-11.537	-1.077
	Low	2.913	1.886	.326	-1.612	7.438
High	High	-3.394	1.886	.203	-7.919	1.131
	Low	6.307(*)	2.180	.012	1.077	11.537
	Medium	3.394	1.886	.203	-1.131	7.919

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1715.541	2	857.771	4.199	.016	.024	.736
Error	69870.753	342	204.300				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.823	.809	49.232	52.415
2	49.700	.881	47.967	51.432
3	48.978	.942	47.126	50.831
4	48.992	.969	47.086	50.898
5	49.245	.924	47.428	51.062
6	50.721	.952	48.848	52.593
7	50.977	1.022	48.967	52.987

8	50.624	1.025	48.607	52.640
9	50.191	.993	48.238	52.145
10	50.351	.976	48.430	52.271
11	48.946	.995	46.989	50.903
12	50.542	.908	48.757	52.328

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.124	.569	.963	-.804	3.052
	3	1.845	.686	.394	-.483	4.173
	4	1.831	.747	.626	-.704	4.366
	5	1.579	.767	.933	-1.021	4.178
	6	.103	.765	1.000	-2.490	2.696
	7	-.154	.794	1.000	-2.845	2.538
	8	.200	.828	1.000	-2.607	3.006
	9	.632	.867	1.000	-2.309	3.573
	10	.473	.802	1.000	-2.249	3.194
	11	1.877	.883	.900	-1.118	4.872
	12	.281	.867	1.000	-2.659	3.221
2	1	-1.124	.569	.963	-3.052	.804
	3	.721	.482	1.000	-.913	2.355
	4	.707	.641	1.000	-1.468	2.883
	5	.455	.702	1.000	-1.924	2.834
	6	-1.021	.793	1.000	-3.711	1.668
	7	-1.277	.819	1.000	-4.055	1.500
	8	-.924	.851	1.000	-3.812	1.963
	9	-.492	.865	1.000	-3.425	2.442
	10	-.651	.798	1.000	-3.358	2.056

3	11	.753	.852	1.000	-2.136	3.643
	12	-.843	.867	1.000	-3.785	2.099
	1	-1.845	.686	.394	-4.173	.483
	2	-.721	.482	1.000	-2.355	.913
	4	-.014	.600	1.000	-2.048	2.020
	5	-.266	.711	1.000	-2.679	2.147
	6	-1.742	.790	.847	-4.420	.935
	7	-1.999	.828	.663	-4.807	.810
	8	-1.645	.845	.971	-4.511	1.220
	9	-1.213	.861	1.000	-4.133	1.707
	10	-1.372	.814	.998	-4.132	1.388
	11	.032	.915	1.000	-3.072	3.137
4	12	-1.564	.922	.998	-4.692	1.565
	1	-1.831	.747	.626	-4.366	.704
	2	-.707	.641	1.000	-2.883	1.468
	3	.014	.600	1.000	-2.020	2.048
	5	-.252	.521	1.000	-2.020	1.515
	6	-1.728	.741	.740	-4.240	.783
	7	-1.985	.816	.644	-4.753	.783
	8	-1.632	.845	.975	-4.498	1.235
	9	-1.199	.854	1.000	-4.097	1.699
	10	-1.359	.836	.999	-4.193	1.476
	11	.046	.921	1.000	-3.077	3.169
	12	-1.550	.925	.999	-4.686	1.585
5	1	-1.579	.767	.933	-4.178	1.021
	2	-.455	.702	1.000	-2.834	1.924
	3	.266	.711	1.000	-2.147	2.679
	4	.252	.521	1.000	-1.515	2.020
	6	-1.476	.606	.641	-3.532	.580
	7	-1.732	.676	.512	-4.025	.561
	8	-1.379	.730	.983	-3.854	1.095
	9	-.947	.722	1.000	-3.396	1.503
	10	-1.106	.712	1.000	-3.521	1.308

6	11	.298	.765	1.000	-2.294	2.891
	12	-1.298	.794	.999	-3.992	1.396
	1	-.103	.765	1.000	-2.696	2.490
	2	1.021	.793	1.000	-1.668	3.711
	3	1.742	.790	.847	-.935	4.420
	4	1.728	.741	.740	-.783	4.240
	5	1.476	.606	.641	-.580	3.532
	7	-.256	.371	1.000	-1.515	1.002
	8	.097	.513	1.000	-1.642	1.836
	9	.529	.570	1.000	-1.403	2.461
	10	.370	.608	1.000	-1.692	2.431
	11	1.774	.767	.758	-.826	4.375
7	12	.178	.789	1.000	-2.499	2.855
	1	.154	.794	1.000	-2.538	2.845
	2	1.277	.819	1.000	-1.500	4.055
	3	1.999	.828	.663	-.810	4.807
	4	1.985	.816	.644	-.783	4.753
	5	1.732	.676	.512	-.561	4.025
	6	.256	.371	1.000	-1.002	1.515
	8	.353	.409	1.000	-1.033	1.739
	9	.786	.506	1.000	-.930	2.501
	10	.626	.558	1.000	-1.266	2.519
	11	2.031	.746	.362	-.498	4.560
	12	.435	.760	1.000	-2.143	3.012
8	1	-.200	.828	1.000	-3.006	2.607
	2	.924	.851	1.000	-1.963	3.812
	3	1.645	.845	.971	-1.220	4.511
	4	1.632	.845	.975	-1.235	4.498
	5	1.379	.730	.983	-1.095	3.854
	6	-.097	.513	1.000	-1.836	1.642
	7	-.353	.409	1.000	-1.739	1.033
	9	.432	.379	1.000	-.852	1.716
	10	.273	.480	1.000	-1.355	1.901

9	11	1.678	.726	.760	-.783	4.138
	12	.081	.776	1.000	-2.549	2.712
	1	-.632	.867	1.000	-3.573	2.309
	2	.492	.865	1.000	-2.442	3.425
	3	1.213	.861	1.000	-1.707	4.133
	4	1.199	.854	1.000	-1.699	4.097
	5	.947	.722	1.000	-1.503	3.396
	6	-.529	.570	1.000	-2.461	1.403
	7	-.786	.506	1.000	-2.501	.930
	8	-.432	.379	1.000	-1.716	.852
	10	-.159	.445	1.000	-1.668	1.349
	11	1.245	.659	.983	-.991	3.482
10	12	-.351	.705	1.000	-2.743	2.041
	1	-.473	.802	1.000	-3.194	2.249
	2	.651	.798	1.000	-2.056	3.358
	3	1.372	.814	.998	-1.388	4.132
	4	1.359	.836	.999	-1.476	4.193
	5	1.106	.712	1.000	-1.308	3.521
	6	-.370	.608	1.000	-2.431	1.692
	7	-.626	.558	1.000	-2.519	1.266
	8	-.273	.480	1.000	-1.901	1.355
	9	.159	.445	1.000	-1.349	1.668
	11	1.405	.529	.425	-.391	3.200
	12	-.192	.626	1.000	-2.316	1.933
11	1	-1.877	.883	.900	-4.872	1.118
	2	-.753	.852	1.000	-3.643	2.136
	3	-.032	.915	1.000	-3.137	3.072
	4	-.046	.921	1.000	-3.169	3.077
	5	-.298	.765	1.000	-2.891	2.294
	6	-1.774	.767	.758	-4.375	.826
	7	-2.031	.746	.362	-4.560	.498
	8	-1.678	.726	.760	-4.138	.783
	9	-1.245	.659	.983	-3.482	.991

12	10	-1.405	.529	.425	-3.200	.391
	12	-1.596	.517	.135	-3.351	.158
	1	-.281	.867	1.000	-3.221	2.659
	2	.843	.867	1.000	-2.099	3.785
	3	1.564	.922	.998	-1.565	4.692
	4	1.550	.925	.999	-1.585	4.686
	5	1.298	.794	.999	-1.396	3.992
	6	-.178	.789	1.000	-2.855	2.499
	7	-.435	.760	1.000	-3.012	2.143
	8	-.081	.776	1.000	-2.712	2.549
	9	.351	.705	1.000	-2.041	2.743
	10	.192	.626	1.000	-1.933	2.316
	11	1.596	.517	.135	-.158	3.351

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	48.628	1.536	45.607	51.649
	2	47.058	1.672	43.769	50.347
	3	45.488	1.788	41.972	49.005
	4	46.128	1.840	42.510	49.746
	5	45.140	1.754	41.690	48.589
	6	48.012	1.807	44.457	51.566
	7	47.709	1.940	43.894	51.525
	8	46.837	1.946	43.009	50.665
	9	46.558	1.885	42.850	50.267
	10	48.233	1.854	44.586	51.879
	11	45.733	1.889	42.018	49.447



Medium	12	47.686	1.723	44.296	51.076
	1	51.110	1.083	48.980	53.240
	2	49.006	1.179	46.687	51.325
	3	49.098	1.260	46.619	51.578
	4	48.023	1.297	45.472	50.574
	5	49.769	1.237	47.337	52.201
	6	50.150	1.274	47.644	52.656
	7	50.827	1.368	48.137	53.517
	8	51.127	1.372	48.428	53.826
	9	50.202	1.329	47.588	52.817
	10	49.971	1.307	47.400	52.542
	11	48.757	1.332	46.138	51.376
High	12	50.127	1.215	47.737	52.517
	1	52.733	1.536	49.711	55.754
	2	53.035	1.672	49.746	56.324
	3	52.349	1.788	48.832	55.865
	4	52.826	1.840	49.207	56.444
	5	52.826	1.754	49.376	56.275
	6	54.000	1.807	50.446	57.554
	7	54.395	1.940	50.580	58.211
	8	53.907	1.946	50.079	57.735
	9	53.814	1.885	50.105	57.522
	10	52.849	1.854	49.203	56.495
	11	52.349	1.889	48.634	56.064
	12	53.814	1.723	50.424	57.204

### ***General Linear Model of Price Volatility with Product***

#### **Between-Subjects Factors**

	Value Label	N
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Price Volatility	1	Low	86
Level	2	Medium	173
	3	High	86

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	11183.739	11	1016.704	11.790	.000	.033	1.000
	Greenhouse-Geisser	11183.739	3.569	3133.681	11.790	.000	.033	1.000
	Huynh-Feldt	11183.739	3.632	3079.016	11.790	.000	.033	1.000
	Lower-bound	11183.739	1.000	11183.739	11.790	.001	.033	.928
year * pvlevel	Sphericity Assumed	3445.133	22	156.597	1.816	.011	.011	.987
	Greenhouse-Geisser	3445.133	7.138	482.663	1.816	.079	.011	.744
	Huynh-Feldt	3445.133	7.264	474.243	1.816	.078	.011	.749
	Lower-bound	3445.133	2.000	1722.566	1.816	.164	.011	.378
Error(year)	Sphericity Assumed	324402.428	3762	86.231				
	Greenhouse-Geisser	324402.428	1220.558	265.782				
	Huynh-Feldt	324402.428	1242.228	261.146				
	Lower-bound	324402.428	342.000	948.545				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	10273.208	1	10273.208	23.735	.000	.065	.998
	Quadratic	483.449	1	483.449	3.040	.082	.009	.412
	Cubic	88.907	1	88.907	.915	.339	.003	.159
year * pvlevel	Linear	2760.340	2	1380.170	3.189	.042	.018	.608
	Quadratic	40.832	2	20.416	.128	.880	.001	.070

Error(year)	Cubic	90.528	2	45.264	.466	.628	.003	.126
	Linear	148025.245	342	432.822				
	Quadratic	54396.309	342	159.054				
	Cubic	33233.092	342	97.173				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	19213.747	2	9606.873	4.114	.017	.023	.726
Error	798695.284	342	2335.366				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

#### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	47.907	1.504	44.948	50.866
Medium	49.184	1.061	47.098	51.270
High	53.592	1.504	50.633	56.551

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level	(J) Price Volatility Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.277	1.841	.866	-5.694	3.140
	High	-5.685(*)	2.127	.023	-10.790	-.580
Medium	Low	1.277	1.841	.866	-3.140	5.694
	High	-4.408	1.841	.051	-8.825	.009
High	Low	5.685(*)	2.127	.023	.580	10.790
	Medium	4.408	1.841	.051	-.009	8.825

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1601.146	2	800.573	4.114	.017	.023	.726
Error	66557.940	342	194.614				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.088	.816	50.482	53.694
2	52.451	.872	50.735	54.166
3	52.287	.857	50.601	53.973

4	51.378	.908	49.592	53.164
5	50.800	.877	49.075	52.526
6	50.523	.896	48.761	52.285
7	50.346	.946	48.485	52.207
8	49.942	.968	48.038	51.846
9	49.514	.979	47.588	51.440
10	49.174	1.006	47.196	51.152
11	47.666	1.050	45.602	49.730
12	46.564	1.064	44.470	48.657

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-.362	.547	1.000	-2.218	1.493
	3	-.199	.619	1.000	-2.298	1.900
	4	.710	.738	1.000	-1.791	3.212
	5	1.288	.794	.999	-1.405	3.980
	6	1.565	.834	.985	-1.263	4.393
	7	1.742	.905	.976	-1.328	4.811
	8	2.146	.882	.644	-.847	5.139
	9	2.574	.907	.274	-.503	5.652
	10	2.914	.904	.087	-.151	5.980
	11	4.422(*)	.998	.001	1.036	7.807
	12	5.524(*)	1.018	.000	2.071	8.978
2	1	.362	.547	1.000	-1.493	2.218
	3	.164	.415	1.000	-1.244	1.571
	4	1.073	.650	.999	-1.131	3.277
	5	1.650	.746	.842	-.878	4.179
	6	1.927	.791	.640	-.756	4.611

3	7	2.104	.870	.658	-.847	5.056
	8	2.509	.861	.222	-.410	5.427
	9	2.937	.894	.072	-.095	5.968
	10	3.277(*)	.908	.023	.197	6.357
	11	4.784(*)	1.004	.000	1.381	8.188
	12	5.887(*)	1.036	.000	2.373	9.401
	1	.199	.619	1.000	-1.900	2.298
	2	-.164	.415	1.000	-1.571	1.244
	4	.909	.536	.998	-.909	2.728
	5	1.487	.656	.801	-.739	3.713
	6	1.764	.755	.738	-.797	4.325
	7	1.941	.843	.769	-.919	4.800
4	8	2.345	.827	.275	-.460	5.151
	9	2.773	.878	.108	-.204	5.750
	10	3.113(*)	.910	.045	.029	6.198
	11	4.621(*)	.987	.000	1.274	7.968
	12	5.723(*)	1.010	.000	2.299	9.148
	1	-.710	.738	1.000	-3.212	1.791
	2	-1.073	.650	.999	-3.277	1.131
	3	-.909	.536	.998	-2.728	.909
	5	.577	.497	1.000	-1.109	2.264
	6	.854	.658	1.000	-1.376	3.085
	7	1.031	.751	1.000	-1.516	3.578
	8	1.436	.777	.989	-1.201	4.072
5	9	1.864	.841	.839	-.987	4.715
	10	2.204	.865	.527	-.730	5.138
	11	3.711(*)	.950	.007	.489	6.934
	12	4.814(*)	.969	.000	1.526	8.101
	1	-1.288	.794	.999	-3.980	1.405
	2	-1.650	.746	.842	-4.179	.878
	3	-1.487	.656	.801	-3.713	.739
	4	-.577	.497	1.000	-2.264	1.109
	6	.277	.473	1.000	-1.327	1.882

6	7	.454	.607	1.000	-1.604	2.512
	8	.858	.654	1.000	-1.360	3.077
	9	1.286	.736	.996	-1.210	3.783
	10	1.627	.763	.896	-.961	4.214
	11	3.134(*)	.834	.013	.307	5.962
	12	4.237(*)	.861	.000	1.315	7.158
	1	-1.565	.834	.985	-4.393	1.263
	2	-1.927	.791	.640	-4.611	.756
	3	-1.764	.755	.738	-4.325	.797
	4	-.854	.658	1.000	-3.085	1.376
	5	-.277	.473	1.000	-1.882	1.327
	7	.177	.406	1.000	-1.201	1.555
7	8	.581	.505	1.000	-1.131	2.294
	9	1.009	.604	.999	-1.041	3.059
	10	1.349	.639	.907	-.817	3.516
	11	2.857(*)	.753	.011	.305	5.409
	12	3.959(*)	.775	.000	1.330	6.589
	1	-1.742	.905	.976	-4.811	1.328
	2	-2.104	.870	.658	-5.056	.847
	3	-1.941	.843	.769	-4.800	.919
	4	-1.031	.751	1.000	-3.578	1.516
	5	-.454	.607	1.000	-2.512	1.604
	6	-.177	.406	1.000	-1.555	1.201
	8	.404	.340	1.000	-.750	1.559
8	9	.832	.511	.999	-.901	2.566
	10	1.173	.606	.974	-.884	3.229
	11	2.680(*)	.724	.016	.225	5.135
	12	3.782(*)	.756	.000	1.217	6.348
	1	-2.146	.882	.644	-5.139	.847
	2	-2.509	.861	.222	-5.427	.410
	3	-2.345	.827	.275	-5.151	.460
	4	-1.436	.777	.989	-4.072	1.201
	5	-.858	.654	1.000	-3.077	1.360

9	6	-.581	.505	1.000	-2.294	1.131
	7	-.404	.340	1.000	-1.559	.750
	9	.428	.382	1.000	-.868	1.724
	10	.768	.516	1.000	-.983	2.519
	11	2.276(*)	.655	.038	.053	4.498
	12	3.378(*)	.706	.000	.985	5.771
	1	-2.574	.907	.274	-5.652	.503
	2	-2.937	.894	.072	-5.968	.095
	3	-2.773	.878	.108	-5.750	.204
	4	-1.864	.841	.839	-4.715	.987
	5	-1.286	.736	.996	-3.783	1.210
	6	-1.009	.604	.999	-3.059	1.041
10	7	-.832	.511	.999	-2.566	.901
	8	-.428	.382	1.000	-1.724	.868
	10	.340	.368	1.000	-.907	1.587
	11	1.848(*)	.533	.039	.040	3.656
	12	2.950(*)	.613	.000	.872	5.028
	1	-2.914	.904	.087	-5.980	.151
	2	-3.277(*)	.908	.023	-6.357	-.197
	3	-3.113(*)	.910	.045	-6.198	-.029
	4	-2.204	.865	.527	-5.138	.730
	5	-1.627	.763	.896	-4.214	.961
	6	-1.349	.639	.907	-3.516	.817
	7	-1.173	.606	.974	-3.229	.884
11	8	-.768	.516	1.000	-2.519	.983
	9	-.340	.368	1.000	-1.587	.907
	11	1.508(*)	.423	.028	.072	2.943
	12	2.610(*)	.529	.000	.816	4.404
	1	-4.422(*)	.998	.001	-7.807	-1.036
	2	-4.784(*)	1.004	.000	-8.188	-1.381
	3	-4.621(*)	.987	.000	-7.968	-1.274
	4	-3.711(*)	.950	.007	-6.934	-.489
	5	-3.134(*)	.834	.013	-5.962	-.307



12	6	-2.857(*)	.753	.011	-5.409	-.305
	7	-2.680(*)	.724	.016	-5.135	-.225
	8	-2.276(*)	.655	.038	-4.498	-.053
	9	-1.848(*)	.533	.039	-3.656	-.040
	10	-1.508(*)	.423	.028	-2.943	-.072
	12	1.102	.346	.100	-.072	2.277
	1	-5.524(*)	1.018	.000	-8.978	-2.071
	2	-5.887(*)	1.036	.000	-9.401	-2.373
	3	-5.723(*)	1.010	.000	-9.148	-2.299
	4	-4.814(*)	.969	.000	-8.101	-1.526
	5	-4.237(*)	.861	.000	-7.158	-1.315
	6	-3.959(*)	.775	.000	-6.589	-1.330
	7	-3.782(*)	.756	.000	-6.348	-1.217
	8	-3.378(*)	.706	.000	-5.771	-.985
	9	-2.950(*)	.613	.000	-5.028	-.872
	10	-2.610(*)	.529	.000	-4.404	-.816
	11	-1.102	.346	.100	-2.277	.072

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	49.616	1.550	46.568	52.665
	2	50.047	1.656	46.790	53.303
	3	49.395	1.627	46.195	52.596
	4	48.837	1.724	45.447	52.228
	5	47.814	1.665	44.538	51.090
	6	48.930	1.701	45.584	52.276
	7	48.616	1.796	45.083	52.149
	8	47.291	1.837	43.677	50.905

Medium	9	46.721	1.859	43.065	50.377
	10	47.047	1.909	43.291	50.802
	11	45.837	1.992	41.918	49.756
	12	44.733	2.021	40.758	48.707
	1	52.578	1.093	50.429	54.727
	2	52.538	1.167	50.241	54.834
	3	52.919	1.147	50.663	55.176
	4	51.191	1.215	48.800	53.581
	5	51.029	1.174	48.719	53.338
	6	49.092	1.199	46.733	51.451
	7	48.318	1.266	45.827	50.809
	8	47.988	1.295	45.440	50.537
High	9	47.832	1.310	45.255	50.410
	10	47.382	1.346	44.734	50.029
	11	45.277	1.405	42.514	48.041
	12	44.064	1.425	41.261	46.866
	1	54.070	1.550	51.021	57.118
	2	54.767	1.656	51.511	58.024
	3	54.547	1.627	51.346	57.747
	4	54.105	1.724	50.714	57.495
	5	53.558	1.665	50.282	56.834
	6	53.547	1.701	50.201	56.892
	7	54.105	1.796	50.572	57.638
	8	54.547	1.837	50.932	58.161
	9	53.988	1.859	50.333	57.644
	10	53.093	1.909	49.338	56.848
	11	51.884	1.992	47.965	55.803
	12	50.895	2.021	46.921	54.870

***General Linear Model of Level of Price Volatility for Corporate Governance***

### Between-Subjects Factors

		Value Label	N
Price Volatility Level	1	Low	86
	2	Medium	173
	3	High	86

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	41651.042	11	3786.458	28.691	.000	.077	1.000
	Greenhouse-Geisser	41651.042	5.605	7430.815	28.691	.000	.077	1.000
	Huynh-Feldt	41651.042	5.743	7252.973	28.691	.000	.077	1.000
	Lower-bound	41651.042	1.000	41651.042	28.691	.000	.077	1.000
year * pvlevel	Sphericity Assumed	2278.664	22	103.576	.785	.748	.005	.668
	Greenhouse-Geisser	2278.664	11.210	203.264	.785	.658	.005	.454
	Huynh-Feldt	2278.664	11.485	198.399	.785	.661	.005	.461
	Lower-bound	2278.664	2.000	1139.332	.785	.457	.005	.184
Error(year)	Sphericity Assumed	496489.975	3762	131.975				
	Greenhouse-Geisser	496489.975	1916.971	258.997				
	Huynh-Feldt	496489.975	1963.975	252.799				
	Lower-bound	496489.975	342.000	1451.725				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	38594.922	1	38594.922	81.705	.000	.193	1.000

year * pvlevel	Quadratic	799.244	1	799.244	3.779	.053	.011	.491
	Cubic	542.573	1	542.573	3.568	.060	.010	.470
	Linear	294.064	2	147.032	.311	.733	.002	.099
	Quadratic	164.176	2	82.088	.388	.679	.002	.112
	Cubic	185.149	2	92.574	.609	.545	.004	.151
Error(year)	Linear	161550.332	342	472.369				
	Quadratic	72332.786	342	211.499				
	Cubic	52010.624	342	152.078				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	5.292	2	2.646	.002	.998	.000	.050
Error	590392.371	342	1726.293				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

#### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.047	1.293	47.503	52.590
Medium	50.118	.912	48.324	51.912
High	50.047	1.293	47.503	52.590

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level	(J) Price Volatility Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-.072	1.583	1.000	-3.869	3.726
	High	-9.66E-015	1.829	1.000	-4.389	4.389
Medium	Low	.072	1.583	1.000	-3.726	3.869
	High	.072	1.583	1.000	-3.726	3.869
High	Low	9.66E-015	1.829	1.000	-4.389	4.389
	Medium	-.072	1.583	1.000	-3.869	3.726

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	.441	2	.220	.002	.998	.000	.050
Error	49199.364	342	143.858				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound

1	56.169	.352	55.477	56.860
2	55.365	.672	54.044	56.687
3	53.177	.755	51.693	54.662
4	51.417	.898	49.651	53.183
5	49.509	.936	47.667	51.350
6	50.637	.958	48.753	52.522
7	50.009	1.022	47.999	52.018
8	47.445	1.072	45.336	49.554
9	48.627	1.057	46.548	50.706
10	47.346	1.039	45.303	49.390
11	45.861	1.027	43.841	47.881
12	45.282	1.031	43.255	47.310

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.803	.620	1.000	-1.299	2.906
	3	2.992(*)	.746	.005	.461	5.522
	4	4.752(*)	.919	.000	1.634	7.870
	5	6.660(*)	.963	.000	3.393	9.927
	6	5.532(*)	.993	.000	2.164	8.899
	7	6.160(*)	1.068	.000	2.539	9.781
	8	8.724(*)	1.112	.000	4.953	12.494
	9	7.542(*)	1.095	.000	3.828	11.255
	10	8.822(*)	1.097	.000	5.102	12.543
	11	10.308(*)	1.089	.000	6.614	14.002
	12	10.886(*)	1.088	.000	7.196	14.577
2	1	-.803	.620	1.000	-2.906	1.299
	3	2.188(*)	.600	.020	.155	4.222

3	4	3.949(*)	.806	.000	1.215	6.683
	5	5.857(*)	.872	.000	2.900	8.814
	6	4.728(*)	.900	.000	1.677	7.780
	7	5.357(*)	.999	.000	1.968	8.746
	8	7.920(*)	1.034	.000	4.413	11.428
	9	6.739(*)	1.062	.000	3.136	10.341
	10	8.019(*)	1.083	.000	4.347	11.691
	11	9.505(*)	1.063	.000	5.901	13.108
	12	10.083(*)	1.070	.000	6.455	13.711
	1	-2.992(*)	.746	.005	-5.522	-.461
	2	-2.188(*)	.600	.020	-4.222	-.155
	4	1.760	.756	.744	-.803	4.324
4	5	3.669(*)	.820	.001	.887	6.450
	6	2.540	.896	.274	-.498	5.578
	7	3.169	1.023	.130	-.299	6.636
	8	5.732(*)	1.037	.000	2.214	9.250
	9	4.550(*)	1.077	.002	.899	8.202
	10	5.831(*)	1.105	.000	2.085	9.577
	11	7.316(*)	1.072	.000	3.680	10.953
	12	7.895(*)	1.087	.000	4.207	11.583
	1	-4.752(*)	.919	.000	-7.870	-1.634
	2	-3.949(*)	.806	.000	-6.683	-1.215
	3	-1.760	.756	.744	-4.324	.803
	5	1.908	.633	.167	-.238	4.055
5	6	.780	.864	1.000	-2.151	3.711
	7	1.408	.946	1.000	-1.799	4.615
	8	3.972(*)	.984	.004	.634	7.309
	9	2.790	1.037	.390	-.725	6.305
	10	4.071(*)	1.024	.006	.596	7.545
	11	5.556(*)	.974	.000	2.252	8.860
	12	6.134(*)	.976	.000	2.824	9.445
	1	-6.660(*)	.963	.000	-9.927	-3.393
	2	-5.857(*)	.872	.000	-8.814	-2.900

6	3	-3.669(*)	.820	.001	-6.450	-.887
	4	-1.908	.633	.167	-4.055	.238
	6	-1.129	.750	1.000	-3.671	1.414
	7	-.500	.844	1.000	-3.363	2.363
	8	2.064	.882	.735	-.929	5.056
	9	.882	.937	1.000	-2.295	4.058
	10	2.162	.941	.772	-1.029	5.354
	11	3.648(*)	.894	.004	.617	6.679
	12	4.226(*)	.900	.000	1.173	7.279
	1	-5.532(*)	.993	.000	-8.899	-2.164
	2	-4.728(*)	.900	.000	-7.780	-1.677
	3	-2.540	.896	.274	-5.578	.498
7	4	-.780	.864	1.000	-3.711	2.151
	5	1.129	.750	1.000	-1.414	3.671
	7	.629	.722	1.000	-1.820	3.077
	8	3.192(*)	.886	.024	.186	6.198
	9	2.010	.975	.932	-1.297	5.317
	10	3.291(*)	.969	.049	.005	6.576
	11	4.776(*)	.967	.000	1.496	8.056
	12	5.355(*)	.967	.000	2.076	8.633
	1	-6.160(*)	1.068	.000	-9.781	-2.539
	2	-5.357(*)	.999	.000	-8.746	-1.968
	3	-3.169	1.023	.130	-6.636	.299
	4	-1.408	.946	1.000	-4.615	1.799
8	5	.500	.844	1.000	-2.363	3.363
	6	-.629	.722	1.000	-3.077	1.820
	8	2.564	.770	.062	-.049	5.176
	9	1.382	.904	1.000	-1.683	4.446
	10	2.662	.944	.285	-.539	5.864
	11	4.148(*)	.909	.000	1.067	7.229
	12	4.726(*)	.918	.000	1.613	7.840
	1	-8.724(*)	1.112	.000	-12.494	-4.953
	2	-7.920(*)	1.034	.000	-11.428	-4.413



9	3	-5.732(*)	1.037	.000	-9.250	-2.214
	4	-3.972(*)	.984	.004	-7.309	-.634
	5	-2.064	.882	.735	-5.056	.929
	6	-3.192(*)	.886	.024	-6.198	-.186
	7	-2.564	.770	.062	-5.176	.049
	9	-1.182	.714	.999	-3.604	1.240
	10	.099	.858	1.000	-2.811	3.008
	11	1.584	.874	.992	-1.379	4.547
	12	2.163	.890	.647	-.857	5.182
	1	-7.542(*)	1.095	.000	-11.255	-3.828
	2	-6.739(*)	1.062	.000	-10.341	-3.136
	3	-4.550(*)	1.077	.002	-8.202	-.899
10	4	-2.790	1.037	.390	-6.305	.725
	5	-.882	.937	1.000	-4.058	2.295
	6	-2.010	.975	.932	-5.317	1.297
	7	-1.382	.904	1.000	-4.446	1.683
	8	1.182	.714	.999	-1.240	3.604
	10	1.281	.743	.997	-1.238	3.799
	11	2.766	.833	.063	-.058	5.590
	12	3.345(*)	.873	.010	.385	6.304
	1	-8.822(*)	1.097	.000	-12.543	-5.102
	2	-8.019(*)	1.083	.000	-11.691	-4.347
	3	-5.831(*)	1.105	.000	-9.577	-2.085
	4	-4.071(*)	1.024	.006	-7.545	-.596
11	5	-2.162	.941	.772	-5.354	1.029
	6	-3.291(*)	.969	.049	-6.576	-.005
	7	-2.662	.944	.285	-5.864	.539
	8	-.099	.858	1.000	-3.008	2.811
	9	-1.281	.743	.997	-3.799	1.238
	11	1.485	.596	.583	-.536	3.506
	12	2.064	.672	.142	-.216	4.344
	1	-10.308(*)	1.089	.000	-14.002	-6.614
	2	-9.505(*)	1.063	.000	-13.108	-5.901

12	3	-7.316(*)	1.072	.000	-10.953	-3.680
	4	-5.556(*)	.974	.000	-8.860	-2.252
	5	-3.648(*)	.894	.004	-6.679	-.617
	6	-4.776(*)	.967	.000	-8.056	-1.496
	7	-4.148(*)	.909	.000	-7.229	-1.067
	8	-1.584	.874	.992	-4.547	1.379
	9	-2.766	.833	.063	-5.590	.058
	10	-1.485	.596	.583	-3.506	.536
	12	.578	.374	1.000	-.688	1.845
	1	-10.886(*)	1.088	.000	-14.577	-7.196
	2	-10.083(*)	1.070	.000	-13.711	-6.455
	3	-7.895(*)	1.087	.000	-11.583	-4.207
	4	-6.134(*)	.976	.000	-9.445	-2.824
	5	-4.226(*)	.900	.000	-7.279	-1.173
	6	-5.355(*)	.967	.000	-8.633	-2.076
	7	-4.726(*)	.918	.000	-7.840	-1.613
	8	-2.163	.890	.647	-5.182	.857
	9	-3.345(*)	.873	.010	-6.304	-.385
	10	-2.064	.672	.142	-4.344	.216
	11	-.578	.374	1.000	-1.845	.688

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	55.791	.667	54.478	57.103
	2	54.733	1.276	52.223	57.242
	3	51.256	1.433	48.437	54.074
	4	50.651	1.704	47.299	54.003
	5	49.442	1.778	45.945	52.938

Medium	6	52.314	1.819	48.736	55.892
	7	50.651	1.940	46.836	54.467
	8	47.779	2.035	43.776	51.782
	9	48.384	2.007	44.437	52.331
	10	48.233	1.973	44.353	52.112
	11	46.419	1.950	42.583	50.254
	12	44.907	1.957	41.058	48.756
	1	56.925	.471	55.999	57.850
	2	55.422	.900	53.653	57.191
	3	53.543	1.010	51.556	55.531
	4	51.890	1.202	49.527	54.254
	5	48.584	1.253	46.119	51.049
High	6	51.214	1.282	48.691	53.736
	7	50.538	1.368	47.848	53.228
	8	47.382	1.435	44.559	50.204
	9	48.509	1.415	45.726	51.291
	10	46.329	1.391	43.594	49.065
	11	45.803	1.375	43.099	48.508
	12	45.277	1.380	42.564	47.991
	1	55.791	.667	54.478	57.103
	2	55.942	1.276	53.432	58.451
	3	54.733	1.433	51.914	57.551
	4	51.709	1.704	48.357	55.062
	5	50.500	1.778	47.004	53.996
	6	48.384	1.819	44.806	51.961
	7	48.837	1.940	45.022	52.653
	8	47.174	2.035	43.171	51.178
	9	48.988	2.007	45.042	52.935
	10	47.477	1.973	43.597	51.357
	11	45.360	1.950	41.525	49.196
	12	45.663	1.957	41.814	49.512

## General Linear Model of Level of Price Volatility for Total CSR

### Between-Subjects Factors

		Value Label	N
Price Volatility Level	1	Low	86
	2	Medium	173
	3	High	86

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	34092.255	11	3099.296	5.169	.000	.015	1.000
	Greenhouse-Geisser	34092.255	4.730	7208.012	5.169	.000	.015	.984
	Huynh-Feldt	34092.255	4.832	7055.163	5.169	.000	.015	.985
	Lower-bound	34092.255	1.000	34092.255	5.169	.024	.015	.621
year * pvlevel	Sphericity Assumed	21731.026	22	987.774	1.648	.029	.010	.975
	Greenhouse-Geisser	21731.026	9.460	2297.259	1.648	.093	.010	.787
	Huynh-Feldt	21731.026	9.664	2248.545	1.648	.091	.010	.794
	Lower-bound	21731.026	2.000	10865.513	1.648	.194	.010	.347
Error(year)	Sphericity Assumed	2255530.542	3762	599.556				
	Greenhouse-Geisser	2255530.542	1617.582	1394.384				
	Huynh-Feldt	2255530.542	1652.627	1364.815				
	Lower-bound	2255530.542	342.000	6595.119				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15549.978	1	15549.978	6.653	.010	.019	.730
	Quadratic	13105.242	1	13105.242	10.765	.001	.031	.905
	Cubic	240.317	1	240.317	.361	.549	.001	.092
year * pvlevel	Linear	12887.491	2	6443.745	2.757	.065	.016	.542
	Quadratic	819.072	2	409.536	.336	.715	.002	.104
	Cubic	1078.921	2	539.461	.809	.446	.005	.188
Error(year)	Linear	799306.534	342	2337.154				
	Quadratic	416330.071	342	1217.339				
	Cubic	227931.763	342	666.467				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
pvlevel	66848.738	2	33424.369	1.766	.173	.010	.369
Error	6474608.906	342	18931.605				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Price Volatility Level

#### Estimates

Measure: MEASURE\_1

Price Volatility Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound

Low	293.513	4.283	285.088	301.937
Medium	299.566	3.020	293.626	305.505
High	304.883	4.283	296.458	313.307

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Price Volatility Level	(J) Price Volatility Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-6.053	5.241	.576	-18.628	6.522
	High	-11.370	6.057	.173	-25.904	3.164
Medium	Low	6.053	5.241	.576	-6.522	18.628
	High	-5.317	5.241	.673	-17.892	7.258
High	Low	11.370	6.057	.173	-3.164	25.904
	Medium	5.317	5.241	.673	-7.258	17.892

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	5570.728	2	2785.364	1.766	.173	.010	.369
Error	539550.742	342	1577.634				

The F tests the effect of Price Volatility Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	298.836	2.176	294.557	303.116
2	301.864	2.379	297.185	306.544
3	301.485	2.536	296.498	306.472
4	301.218	2.676	295.954	306.481
5	300.624	2.642	295.428	305.820
6	300.834	2.555	295.809	305.858
7	302.884	2.737	297.500	308.268
8	299.080	2.803	293.567	304.593
9	299.992	2.756	294.572	305.413
10	298.841	2.657	293.616	304.066
11	293.122	2.735	287.743	298.501
12	293.063	2.718	287.717	298.409

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-3.028	1.263	.679	-7.311	1.256
	3	-2.648	1.553	.998	-7.916	2.619
	4	-2.381	1.980	1.000	-9.098	4.335
	5	-1.787	2.092	1.000	-8.882	5.307
	6	-1.997	2.243	1.000	-9.604	5.609
	7	-4.047	2.382	.998	-12.126	4.031
	8	-.244	2.429	1.000	-8.481	7.993
	9	-1.156	2.332	1.000	-9.065	6.753
	10	-.005	2.273	1.000	-7.712	7.702
	11	5.714	2.434	.727	-2.541	13.969

2	12	5.773	2.446	.715	-2.523	14.070
	1	3.028	1.263	.679	-1.256	7.311
	3	.379	1.205	1.000	-3.706	4.465
	4	.646	1.787	1.000	-5.413	6.705
	5	1.240	1.978	1.000	-5.467	7.948
	6	1.031	2.176	1.000	-6.347	8.409
	7	-1.020	2.317	1.000	-8.877	6.838
	8	2.784	2.286	1.000	-4.970	10.537
	9	1.872	2.265	1.000	-5.810	9.553
	10	3.023	2.219	1.000	-4.504	10.550
	11	8.742(*)	2.340	.014	.805	16.679
	12	8.801(*)	2.359	.015	.799	16.803
3	1	2.648	1.553	.998	-2.619	7.916
	2	-.379	1.205	1.000	-4.465	3.706
	4	.267	1.601	1.000	-5.164	5.698
	5	.861	1.962	1.000	-5.792	7.514
	6	.651	2.149	1.000	-6.637	7.940
	7	-1.399	2.337	1.000	-9.323	6.525
	8	2.404	2.298	1.000	-5.390	10.199
	9	1.492	2.275	1.000	-6.224	9.209
	10	2.644	2.245	1.000	-4.971	10.259
	11	8.363(*)	2.316	.023	.507	16.218
	12	8.422(*)	2.330	.023	.521	16.323
4	1	2.381	1.980	1.000	-4.335	9.098
	2	-.646	1.787	1.000	-6.705	5.413
	3	-.267	1.601	1.000	-5.698	5.164
	5	.594	1.340	1.000	-3.950	5.137
	6	.384	1.809	1.000	-5.750	6.519
	7	-1.666	1.985	1.000	-8.397	5.065
	8	2.137	2.024	1.000	-4.728	9.003
	9	1.225	2.098	1.000	-5.891	8.341
	10	2.377	2.101	1.000	-4.749	9.502
	11	8.096(*)	2.211	.019	.597	15.594



5	12	8.155(*)	2.171	.013	.794	15.516
	1	1.787	2.092	1.000	-5.307	8.882
	2	-1.240	1.978	1.000	-7.948	5.467
	3	-.861	1.962	1.000	-7.514	5.792
	4	-.594	1.340	1.000	-5.137	3.950
	6	-.210	1.518	1.000	-5.359	4.940
	7	-2.260	1.780	1.000	-8.297	3.777
	8	1.543	1.957	1.000	-5.092	8.179
	9	.631	2.006	1.000	-6.172	7.434
	10	1.783	2.034	1.000	-5.115	8.680
	11	7.502(*)	2.169	.040	.145	14.859
	12	7.561(*)	2.138	.030	.309	14.813
6	1	1.997	2.243	1.000	-5.609	9.604
	2	-1.031	2.176	1.000	-8.409	6.347
	3	-.651	2.149	1.000	-7.940	6.637
	4	-.384	1.809	1.000	-6.519	5.750
	5	.210	1.518	1.000	-4.940	5.359
	7	-2.050	1.254	.999	-6.302	2.202
	8	1.753	1.643	1.000	-3.818	7.324
	9	.841	1.762	1.000	-5.134	6.816
	10	1.992	1.894	1.000	-4.430	8.415
	11	7.712(*)	2.114	.020	.543	14.880
	12	7.771(*)	2.094	.016	.670	14.872
7	1	4.047	2.382	.998	-4.031	12.126
	2	1.020	2.317	1.000	-6.838	8.877
	3	1.399	2.337	1.000	-6.525	9.323
	4	1.666	1.985	1.000	-5.065	8.397
	5	2.260	1.780	1.000	-3.777	8.297
	6	2.050	1.254	.999	-2.202	6.302
	8	3.803	1.427	.414	-1.037	8.644
	9	2.891	1.602	.993	-2.543	8.326
	10	4.043	1.815	.831	-2.112	10.197
	11	9.762(*)	2.093	.000	2.665	16.859

8	12	9.821(*)	2.060	.000	2.836	16.806
	1	.244	2.429	1.000	-7.993	8.481
	2	-2.784	2.286	1.000	-10.537	4.970
	3	-2.404	2.298	1.000	-10.199	5.390
	4	-2.137	2.024	1.000	-9.003	4.728
	5	-1.543	1.957	1.000	-8.179	5.092
	6	-1.753	1.643	1.000	-7.324	3.818
	7	-3.803	1.427	.414	-8.644	1.037
	9	-.912	1.144	1.000	-4.791	2.967
	10	.239	1.532	1.000	-4.955	5.433
	11	5.958	1.769	.054	-.043	11.959
	12	6.017	1.839	.075	-.218	12.253
9	1	1.156	2.332	1.000	-6.753	9.065
	2	-1.872	2.265	1.000	-9.553	5.810
	3	-1.492	2.275	1.000	-9.209	6.224
	4	-1.225	2.098	1.000	-8.341	5.891
	5	-.631	2.006	1.000	-7.434	6.172
	6	-.841	1.762	1.000	-6.816	5.134
	7	-2.891	1.602	.993	-8.326	2.543
	8	.912	1.144	1.000	-2.967	4.791
	10	1.151	1.334	1.000	-3.373	5.675
	11	6.870(*)	1.626	.002	1.356	12.385
	12	6.930(*)	1.702	.004	1.157	12.702
10	1	.005	2.273	1.000	-7.702	7.712
	2	-3.023	2.219	1.000	-10.550	4.504
	3	-2.644	2.245	1.000	-10.259	4.971
	4	-2.377	2.101	1.000	-9.502	4.749
	5	-1.783	2.034	1.000	-8.680	5.115
	6	-1.992	1.894	1.000	-8.415	4.430
	7	-4.043	1.815	.831	-10.197	2.112
	8	-.239	1.532	1.000	-5.433	4.955
	9	-1.151	1.334	1.000	-5.675	3.373
	11	5.719(*)	1.141	.000	1.849	9.589

11	12	5.778(*)	1.362	.002	1.159	10.397
	1	-5.714	2.434	.727	-13.969	2.541
	2	-8.742(*)	2.340	.014	-16.679	-.805
	3	-8.363(*)	2.316	.023	-16.218	-.507
	4	-8.096(*)	2.211	.019	-15.594	-.597
	5	-7.502(*)	2.169	.040	-14.859	-.145
	6	-7.712(*)	2.114	.020	-14.880	-.543
	7	-9.762(*)	2.093	.000	-16.859	-2.665
	8	-5.958	1.769	.054	-11.959	.043
	9	-6.870(*)	1.626	.002	-12.385	-1.356
	10	-5.719(*)	1.141	.000	-9.589	-1.849
12	12	.059	.948	1.000	-3.156	3.275
	1	-5.773	2.446	.715	-14.070	2.523
	2	-8.801(*)	2.359	.015	-16.803	-.799
	3	-8.422(*)	2.330	.023	-16.323	-.521
	4	-8.155(*)	2.171	.013	-15.516	-.794
	5	-7.561(*)	2.138	.030	-14.813	-.309
	6	-7.771(*)	2.094	.016	-14.872	-.670
	7	-9.821(*)	2.060	.000	-16.806	-2.836
	8	-6.017	1.839	.075	-12.253	.218
	9	-6.930(*)	1.702	.004	-12.702	-1.157
	10	-5.778(*)	1.362	.002	-10.397	-1.159
	11	-.059	.948	1.000	-3.275	3.156

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Price Volatility Level \* year

Measure: MEASURE\_1

Price Volatility Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	292.058	4.130	283.934	300.182
	2	297.872	4.517	288.988	306.756

Medium	3	294.942	4.814	285.474	304.410
	4	297.395	5.080	287.403	307.388
	5	292.791	5.015	282.926	302.655
	6	295.721	4.850	286.182	305.260
	7	297.593	5.197	287.371	307.815
	8	291.291	5.321	280.824	301.757
	9	290.151	5.232	279.860	300.442
	10	294.616	5.043	284.696	304.536
	11	288.570	5.192	278.358	298.782
	12	289.151	5.160	279.001	299.301
	1	303.393	2.912	297.665	309.121
	2	303.081	3.185	296.817	309.345
	3	303.850	3.394	297.174	310.525
	4	301.630	3.582	294.585	308.675
	5	302.116	3.536	295.161	309.071
	6	302.861	3.419	296.135	309.587
	7	303.977	3.664	296.770	311.184
	8	300.532	3.752	293.152	307.911
	9	298.884	3.689	291.629	306.140
	10	294.931	3.556	287.937	301.925
	11	290.017	3.661	282.817	297.217
	12	289.514	3.638	282.358	296.671
High	1	301.058	4.130	292.934	309.182
	2	304.640	4.517	295.756	313.524
	3	305.663	4.814	296.195	315.131
	4	304.628	5.080	294.635	314.620
	5	306.965	5.015	297.101	316.829
	6	303.919	4.850	294.379	313.458
	7	307.081	5.197	296.860	317.303
	8	305.419	5.321	294.952	315.885
	9	310.942	5.232	300.651	321.233
	10	306.977	5.043	297.057	316.897

11	300.779	5.192	290.567	310.991
12	300.523	5.160	290.373	310.673

## APPENDIX I

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Working Capital

#### *General Linear Model of Level of Working Capital for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164
	3	High	82

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	20238.781	11	1839.889	20.065	.000	.058	1.000
	Greenhouse-Geisser	20238.781	4.115	4918.203	20.065	.000	.058	1.000
	Huynh-Feldt	20238.781	4.200	4818.656	20.065	.000	.058	1.000
	Lower-bound	20238.781	1.000	20238.781	20.065	.000	.058	.994
year * wcleve	Sphericity Assumed	1940.719	22	88.215	.962	.511	.006	.783
	Greenhouse-Geisser	1940.719	8.230	235.806	.962	.466	.006	.464
	Huynh-Feldt	1940.719	8.400	231.033	.962	.467	.006	.469
	Lower-bound	1940.719	2.000	970.360	.962	.383	.006	.217
Error(year)	Sphericity Assumed	327820.434	3575	91.698				
	Greenhouse-Geisser	327820.434	1337.400	245.118				
	Huynh-Feldt	327820.434	1365.029	240.156				
	Lower-bound	327820.434	325.000	1008.678				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	17149.407	1	17149.407	43.651	.000	.118	1.000
	Quadratic	347.122	1	347.122	2.089	.149	.006	.302
	Cubic	2024.747	1	2024.747	20.947	.000	.061	.995
year * wlevel	Linear	219.007	2	109.504	.279	.757	.002	.094
	Quadratic	9.749	2	4.874	.029	.971	.000	.054
	Cubic	9.493	2	4.747	.049	.952	.000	.057
Error(year)	Linear	127685.880	325	392.880				
	Quadratic	54009.824	325	166.184				
	Cubic	31413.912	325	96.658				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wlevel	4413.574	2	2206.787	1.310	.271	.008	.283
Error	547449.145	325	1684.459				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.063	.861	48.370	51.757
2	51.764	.947	49.902	53.626
3	52.453	1.041	50.405	54.501
4	50.358	.906	48.576	52.139
5	50.650	.949	48.784	52.517
6	49.280	.859	47.591	50.970
7	49.008	.855	47.325	50.691
8	47.020	.807	45.434	48.607
9	46.333	.803	44.753	47.914
10	45.874	.777	44.346	47.402
11	45.327	.786	43.781	46.874
12	45.789	.834	44.148	47.429

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.701(*)	.463	.018	-3.273	-.130
	3	-2.390(*)	.680	.033	-4.698	-.083
	4	-.295	.802	1.000	-3.017	2.427
	5	-.587	.908	1.000	-3.668	2.494
	6	.783	.913	1.000	-2.316	3.881
	7	1.055	.921	1.000	-2.069	4.179
	8	3.043	.915	.063	-.062	6.147



2	9	3.730(*)	.903	.003	.664	6.795
	10	4.189(*)	.881	.000	1.200	7.178
	11	4.736(*)	.913	.000	1.638	7.833
	12	4.274(*)	.951	.001	1.049	7.500
	1	1.701(*)	.463	.018	.130	3.273
	3	-.689	.507	1.000	-2.410	1.032
	4	1.407	.748	.984	-1.132	3.945
	5	1.114	.891	1.000	-1.908	4.135
	6	2.484	.926	.400	-.659	5.626
	7	2.756	.934	.201	-.413	5.925
	8	4.744(*)	.943	.000	1.545	7.942
	9	5.431(*)	.948	.000	2.214	8.648
3	10	5.890(*)	.951	.000	2.665	9.115
	11	6.437(*)	.985	.000	3.096	9.778
	12	5.976(*)	1.004	.000	2.570	9.381
	1	2.390(*)	.680	.033	.083	4.698
	2	.689	.507	1.000	-1.032	2.410
	4	2.096	.667	.115	-.168	4.360
	5	1.803	.865	.923	-1.133	4.739
	6	3.173(*)	.913	.037	.075	6.270
	7	3.445(*)	.942	.019	.249	6.641
	8	5.433(*)	.960	.000	2.175	8.691
	9	6.120(*)	.972	.000	2.822	9.418
	10	6.579(*)	.969	.000	3.293	9.866
4	11	7.126(*)	1.009	.000	3.704	10.548
	12	6.665(*)	1.047	.000	3.111	10.218
	1	.295	.802	1.000	-2.427	3.017
	2	-1.407	.748	.984	-3.945	1.132
	3	-2.096	.667	.115	-4.360	.168
	5	-.293	.614	1.000	-2.375	1.790
	6	1.077	.711	1.000	-1.336	3.490
	7	1.350	.742	.992	-1.169	3.869
	8	3.337(*)	.812	.003	.584	6.091

5	9	4.024(*)	.814	.000	1.262	6.787
	10	4.484(*)	.833	.000	1.657	7.311
	11	5.030(*)	.870	.000	2.080	7.981
	12	4.569(*)	.907	.000	1.491	7.647
	1	.587	.908	1.000	-2.494	3.668
	2	-1.114	.891	1.000	-4.135	1.908
	3	-1.803	.865	.923	-4.739	1.133
	4	.293	.614	1.000	-1.790	2.375
	6	1.370	.595	.770	-.650	3.390
	7	1.642	.675	.645	-.649	3.934
	8	3.630(*)	.788	.000	.956	6.304
	9	4.317(*)	.851	.000	1.429	7.205
6	10	4.776(*)	.852	.000	1.887	7.666
	11	5.323(*)	.875	.000	2.354	8.293
	12	4.862(*)	.889	.000	1.846	7.877
	1	-.783	.913	1.000	-3.881	2.316
	2	-2.484	.926	.400	-5.626	.659
	3	-3.173(*)	.913	.037	-6.270	-.075
	4	-1.077	.711	1.000	-3.490	1.336
	5	-1.370	.595	.770	-3.390	.650
	7	.272	.529	1.000	-1.524	2.069
	8	2.260(*)	.650	.037	.055	4.466
	9	2.947(*)	.738	.005	.444	5.450
	10	3.407(*)	.774	.001	.781	6.032
7	11	3.953(*)	.797	.000	1.248	6.659
	12	3.492(*)	.793	.001	.801	6.183
	1	-1.055	.921	1.000	-4.179	2.069
	2	-2.756	.934	.201	-5.925	.413
	3	-3.445(*)	.942	.019	-6.641	-.249
	4	-1.350	.742	.992	-3.869	1.169
	5	-1.642	.675	.645	-3.934	.649
	6	-.272	.529	1.000	-2.069	1.524
	8	1.988(*)	.550	.023	.123	3.852

8	9	2.675(*)	.647	.003	.478	4.871
	10	3.134(*)	.687	.000	.805	5.464
	11	3.681(*)	.724	.000	1.223	6.138
	12	3.220(*)	.686	.000	.891	5.548
	1	-3.043	.915	.063	-6.147	.062
	2	-4.744(*)	.943	.000	-7.942	-1.545
	3	-5.433(*)	.960	.000	-8.691	-2.175
	4	-3.337(*)	.812	.003	-6.091	-.584
	5	-3.630(*)	.788	.000	-6.304	-.956
	6	-2.260(*)	.650	.037	-4.466	-.055
	7	-1.988(*)	.550	.023	-3.852	-.123
	9	.687	.406	.998	-.692	2.066
9	10	1.146	.535	.890	-.669	2.962
	11	1.693	.581	.222	-.277	3.663
	12	1.232	.590	.921	-.772	3.235
	1	-3.730(*)	.903	.003	-6.795	-.664
	2	-5.431(*)	.948	.000	-8.648	-2.214
	3	-6.120(*)	.972	.000	-9.418	-2.822
	4	-4.024(*)	.814	.000	-6.787	-1.262
	5	-4.317(*)	.851	.000	-7.205	-1.429
	6	-2.947(*)	.738	.005	-5.450	-.444
	7	-2.675(*)	.647	.003	-4.871	-.478
	8	-.687	.406	.998	-2.066	.692
	10	.459	.407	1.000	-.921	1.840
10	11	1.006	.532	.983	-.800	2.813
	12	.545	.572	1.000	-1.396	2.486
	1	-4.189(*)	.881	.000	-7.178	-1.200
	2	-5.890(*)	.951	.000	-9.115	-2.665
	3	-6.579(*)	.969	.000	-9.866	-3.293
	4	-4.484(*)	.833	.000	-7.311	-1.657
	5	-4.776(*)	.852	.000	-7.666	-1.887
	6	-3.407(*)	.774	.001	-6.032	-.781
	7	-3.134(*)	.687	.000	-5.464	-.805

11	8	-1.146	.535	.890	-2.962	.669
	9	-.459	.407	1.000	-1.840	.921
	11	.547	.333	.999	-.583	1.677
	12	.085	.490	1.000	-1.576	1.747
	1	-4.736(*)	.913	.000	-7.833	-1.638
	2	-6.437(*)	.985	.000	-9.778	-3.096
	3	-7.126(*)	1.009	.000	-10.548	-3.704
	4	-5.030(*)	.870	.000	-7.981	-2.080
	5	-5.323(*)	.875	.000	-8.293	-2.354
	6	-3.953(*)	.797	.000	-6.659	-1.248
	7	-3.681(*)	.724	.000	-6.138	-1.223
12	8	-1.693	.581	.222	-3.663	.277
	9	-1.006	.532	.983	-2.813	.800
	10	-.547	.333	.999	-1.677	.583
	12	-.461	.372	1.000	-1.723	.800
	1	-4.274(*)	.951	.001	-7.500	-1.049
	2	-5.976(*)	1.004	.000	-9.381	-2.570
	3	-6.665(*)	1.047	.000	-10.218	-3.111
	4	-4.569(*)	.907	.000	-7.647	-1.491
	5	-4.862(*)	.889	.000	-7.877	-1.846
	6	-3.492(*)	.793	.001	-6.183	-.801
	7	-3.220(*)	.686	.000	-5.548	-.891
	8	-1.232	.590	.921	-3.235	.772
	9	-.545	.572	1.000	-2.486	1.396
	10	-.085	.490	1.000	-1.747	1.576
	11	.461	.372	1.000	-.800	1.723

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.069	1.308	47.495	52.643
Medium	47.477	.925	45.657	49.297
High	48.434	1.308	45.860	51.008

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	2.592	1.602	.287	-1.254	6.438
	High	1.635	1.850	.759	-2.806	6.076
Medium	Low	-2.592	1.602	.287	-6.438	1.254
	High	-.957	1.602	.909	-4.803	2.889
High	Low	-1.635	1.850	.759	-6.076	2.806
	Medium	.957	1.602	.909	-2.889	4.803

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	367.798	2	183.899	1.310	.271	.008	.283
Error	45620.762	325	140.372				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	51.463	1.633	48.250	54.677
	2	54.756	1.796	51.223	58.289
	3	54.634	1.975	50.748	58.520
	4	50.159	1.718	46.778	53.539
	5	51.476	1.800	47.934	55.017
	6	52.244	1.629	49.038	55.450
	7	51.683	1.623	48.490	54.876
	8	47.951	1.530	44.940	50.962
	9	47.122	1.524	44.123	50.121
	10	46.451	1.474	43.552	49.351
	11	45.720	1.491	42.785	48.654
	12	47.171	1.582	44.059	50.283
Medium	1	48.823	1.155	46.551	51.095
	2	49.976	1.270	47.477	52.474
	3	50.848	1.397	48.100	53.595
	4	49.366	1.215	46.976	51.756
	5	49.256	1.273	46.752	51.760
	6	48.000	1.152	45.733	50.267
	7	48.073	1.148	45.815	50.331
	8	46.171	1.082	44.042	48.300
	9	45.146	1.078	43.026	47.267
	10	44.768	1.042	42.718	46.819
	11	44.518	1.055	42.444	46.593
	12	44.780	1.119	42.580	46.981
High	1	49.902	1.633	46.689	53.116
	2	50.561	1.796	47.028	54.094
	3	51.878	1.975	47.992	55.764
	4	51.549	1.718	48.169	54.929

5	51.220	1.800	47.678	54.761
6	47.598	1.629	44.392	50.803
7	47.268	1.623	44.075	50.462
8	46.939	1.530	43.928	49.950
9	46.732	1.524	43.733	49.731
10	46.402	1.474	43.503	49.302
11	45.744	1.491	42.810	48.678
12	45.415	1.582	42.303	48.527

### ***General Linear Model of Level of Working Capital for Diversity***

#### **Between-Subjects Factors**

	Value Label	N
Working Capital Level	1 Low	82
	2 Medium	164
	3 High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	38945.773	11	3540.525	43.356	.000	.118	1.000
	Greenhouse-Geisser	38945.773	4.131	9427.913	43.356	.000	.118	1.000
	Huynh-Feldt	38945.773	4.216	9236.579	43.356	.000	.118	1.000
	Lower-bound	38945.773	1.000	38945.773	43.356	.000	.118	1.000
year * wclevel	Sphericity Assumed	3399.157	22	154.507	1.892	.007	.012	.990
	Greenhouse-Geisser	3399.157	8.262	411.430	1.892	.055	.012	.811

Error(year)	Huynh-Feldt	3399.157	8.433	403.081	1.892	.054	.012	.817
	Lower-bound	3399.157	2.000	1699.578	1.892	.152	.012	.392
	Sphericity Assumed	291939.039	3575	81.661				
	Greenhouse-Geisser	291939.039	1342.543	217.452				
	Huynh-Feldt	291939.039	1370.353	213.039				
	Lower-bound	291939.039	325.000	898.274				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	37597.599	1	37597.599	104.899	.000	.244	1.000
	Quadratic	912.174	1	912.174	5.758	.017	.017	.667
	Cubic	101.976	1	101.976	1.426	.233	.004	.222
year * wlevel	Linear	2175.023	2	1087.512	3.034	.049	.018	.585
	Quadratic	317.427	2	158.714	1.002	.368	.006	.224
	Cubic	251.119	2	125.560	1.756	.174	.011	.367
Error(year)	Linear	116485.113	325	358.416				
	Quadratic	51487.706	325	158.424				
	Cubic	23234.689	325	71.491				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wlevel	14561.563	2	7280.782	3.484	.032	.021	.649
Error	679270.364	325	2090.063				

a. Computed using alpha = .05



## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.384	.534	43.333	45.435
2	45.061	.598	43.884	46.238
3	45.876	.683	44.533	47.219
4	48.067	.837	46.421	49.714
5	49.238	.867	47.533	50.943
6	49.756	.936	47.915	51.598
7	51.305	.979	49.380	53.230
8	51.750	1.001	49.782	53.718
9	52.451	1.060	50.365	54.537
10	53.516	1.094	51.364	55.668
11	54.055	1.113	51.866	56.244
12	53.882	1.081	51.756	56.008

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-.677	.250	.381	-1.527	.173
	3	-1.492(*)	.405	.018	-2.867	-.116

2	4	-3.683(*)	.598	.000	-5.713	-1.653
	5	-4.854(*)	.648	.000	-7.054	-2.654
	6	-5.372(*)	.759	.000	-7.949	-2.795
	7	-6.921(*)	.821	.000	-9.706	-4.136
	8	-7.366(*)	.855	.000	-10.268	-4.464
	9	-8.067(*)	.930	.000	-11.222	-4.912
	10	-9.132(*)	.940	.000	-12.323	-5.942
	11	-9.671(*)	.952	.000	-12.900	-6.441
	12	-9.498(*)	.927	.000	-12.644	-6.352
	1	.677	.250	.381	-.173	1.527
	3	-.815	.322	.545	-1.908	.278
	4	-3.006(*)	.562	.000	-4.914	-1.098
3	5	-4.177(*)	.611	.000	-6.251	-2.102
	6	-4.695(*)	.700	.000	-7.070	-2.320
	7	-6.244(*)	.758	.000	-8.815	-3.673
	8	-6.689(*)	.795	.000	-9.388	-3.990
	9	-7.390(*)	.883	.000	-10.388	-4.393
	10	-8.455(*)	.890	.000	-11.475	-5.436
	11	-8.994(*)	.899	.000	-12.046	-5.942
	12	-8.821(*)	.881	.000	-11.809	-5.834
	1	1.492(*)	.405	.018	.116	2.867
	2	.815	.322	.545	-.278	1.908
	4	-2.191(*)	.514	.002	-3.934	-.448
	5	-3.362(*)	.607	.000	-5.422	-1.301
4	6	-3.880(*)	.713	.000	-6.300	-1.460
	7	-5.429(*)	.763	.000	-8.017	-2.841
	8	-5.874(*)	.770	.000	-8.486	-3.262
	9	-6.575(*)	.861	.000	-9.496	-3.655
	10	-7.640(*)	.880	.000	-10.627	-4.653
	11	-8.179(*)	.867	.000	-11.122	-5.236
	12	-8.006(*)	.856	.000	-10.909	-5.103
	1	3.683(*)	.598	.000	1.653	5.713
	2	3.006(*)	.562	.000	1.098	4.914

5	3	2.191(*)	.514	.002	.448	3.934
	5	-1.171	.459	.525	-2.728	.387
	6	-1.689	.638	.432	-3.854	.476
	7	-3.238(*)	.735	.001	-5.732	-.743
	8	-3.683(*)	.741	.000	-6.196	-1.170
	9	-4.384(*)	.831	.000	-7.203	-1.565
	10	-5.449(*)	.878	.000	-8.428	-2.470
	11	-5.988(*)	.886	.000	-8.992	-2.983
	12	-5.815(*)	.871	.000	-8.771	-2.860
	1	4.854(*)	.648	.000	2.654	7.054
	2	4.177(*)	.611	.000	2.102	6.251
	3	3.362(*)	.607	.000	1.301	5.422
6	4	1.171	.459	.525	-.387	2.728
	6	-.518	.499	1.000	-2.213	1.176
	7	-2.067	.645	.093	-4.254	.120
	8	-2.512(*)	.686	.019	-4.838	-.186
	9	-3.213(*)	.770	.003	-5.827	-.600
	10	-4.278(*)	.860	.000	-7.197	-1.360
	11	-4.817(*)	.877	.000	-7.794	-1.840
	12	-4.644(*)	.850	.000	-7.528	-1.760
	1	5.372(*)	.759	.000	2.795	7.949
	2	4.695(*)	.700	.000	2.320	7.070
	3	3.880(*)	.713	.000	1.460	6.300
	4	1.689	.638	.432	-.476	3.854
7	5	.518	.499	1.000	-1.176	2.213
	7	-1.549	.475	.078	-3.161	.064
	8	-1.994	.624	.096	-4.111	.124
	9	-2.695(*)	.772	.036	-5.316	-.074
	10	-3.760(*)	.878	.002	-6.738	-.782
	11	-4.299(*)	.919	.000	-7.418	-1.180
	12	-4.126(*)	.868	.000	-7.072	-1.180
	1	6.921(*)	.821	.000	4.136	9.706
	2	6.244(*)	.758	.000	3.673	8.815

8	3	5.429(*)	.763	.000	2.841	8.017
	4	3.238(*)	.735	.001	.743	5.732
	5	2.067	.645	.093	-.120	4.254
	6	1.549	.475	.078	-.064	3.161
	8	-.445	.482	1.000	-2.081	1.191
	9	-1.146	.687	.999	-3.477	1.184
	10	-2.211	.811	.361	-4.965	.542
	11	-2.750	.864	.100	-5.681	.181
	12	-2.577	.815	.107	-5.343	.189
	1	7.366(*)	.855	.000	4.464	10.268
	2	6.689(*)	.795	.000	3.990	9.388
	3	5.874(*)	.770	.000	3.262	8.486
9	4	3.683(*)	.741	.000	1.170	6.196
	5	2.512(*)	.686	.019	.186	4.838
	6	1.994	.624	.096	-.124	4.111
	7	.445	.482	1.000	-1.191	2.081
	9	-.701	.532	1.000	-2.506	1.104
	10	-1.766	.702	.560	-4.148	.616
	11	-2.305	.771	.181	-4.922	.312
	12	-2.132	.749	.266	-4.672	.408
	1	8.067(*)	.930	.000	4.912	11.222
	2	7.390(*)	.883	.000	4.393	10.388
	3	6.575(*)	.861	.000	3.655	9.496
	4	4.384(*)	.831	.000	1.565	7.203
10	5	3.213(*)	.770	.003	.600	5.827
	6	2.695(*)	.772	.036	.074	5.316
	7	1.146	.687	.999	-1.184	3.477
	8	.701	.532	1.000	-1.104	2.506
	10	-1.065	.577	.989	-3.024	.893
	11	-1.604	.715	.818	-4.028	.821
	12	-1.431	.679	.911	-3.736	.874
	1	9.132(*)	.940	.000	5.942	12.323
	2	8.455(*)	.890	.000	5.436	11.475

11	3	7.640(*)	.880	.000	4.653	10.627
	4	5.449(*)	.878	.000	2.470	8.428
	5	4.278(*)	.860	.000	1.360	7.197
	6	3.760(*)	.878	.002	.782	6.738
	7	2.211	.811	.361	-.542	4.965
	8	1.766	.702	.560	-.616	4.148
	9	1.065	.577	.989	-.893	3.024
	11	-.539	.494	1.000	-2.214	1.137
	12	-.366	.600	1.000	-2.403	1.671
	1	9.671(*)	.952	.000	6.441	12.900
	2	8.994(*)	.899	.000	5.942	12.046
12	3	8.179(*)	.867	.000	5.236	11.122
	4	5.988(*)	.886	.000	2.983	8.992
	5	4.817(*)	.877	.000	1.840	7.794
	6	4.299(*)	.919	.000	1.180	7.418
	7	2.750	.864	.100	-.181	5.681
	8	2.305	.771	.181	-.312	4.922
	9	1.604	.715	.818	-.821	4.028
	10	.539	.494	1.000	-1.137	2.214
	12	.173	.427	1.000	-1.277	1.623
	1	9.498(*)	.927	.000	6.352	12.644
	2	8.821(*)	.881	.000	5.834	11.809
	3	8.006(*)	.856	.000	5.103	10.909
	4	5.815(*)	.871	.000	2.860	8.771
	5	4.644(*)	.850	.000	1.760	7.528
	6	4.126(*)	.868	.000	1.180	7.072
	7	2.577	.815	.107	-.189	5.343
	8	2.132	.749	.266	-.408	4.672
	9	1.431	.679	.911	-.874	3.736
	10	.366	.600	1.000	-1.671	2.403
	11	-.173	.427	1.000	-1.623	1.277

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	52.952	1.457	50.085	55.819
Medium	48.872	1.031	46.845	50.899
High	48.011	1.457	45.144	50.878

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	4.080	1.785	.067	-.204	8.364
	High	4.941	2.061	.050	-.006	9.888
Medium	Low	-4.080	1.785	.067	-8.364	.204
	High	.861	1.785	.949	-3.423	5.145
High	Low	-4.941	2.061	.050	-9.888	.006
	Medium	-.861	1.785	.949	-5.145	3.423

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1213.464	2	606.732	3.484	.032	.021	.649
Error	56605.864	325	174.172				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.122	1.014	44.128	48.116
	2	47.012	1.135	44.779	49.246
	3	47.573	1.295	45.025	50.122
	4	50.293	1.588	47.169	53.417
	5	52.902	1.644	49.668	56.137
	6	53.122	1.776	49.628	56.616
	7	55.659	1.857	52.006	59.311
	8	55.805	1.898	52.070	59.540
	9	55.390	2.012	51.432	59.348
	10	56.476	2.075	52.393	60.559
	11	58.280	2.111	54.127	62.434
	12	56.793	2.051	52.758	60.827
Medium	1	42.823	.717	41.413	44.233
	2	43.561	.803	41.982	45.140
	3	43.896	.916	42.094	45.698
	4	46.555	1.123	44.346	48.764
	5	47.457	1.163	45.170	49.744
	6	48.195	1.256	45.725	50.666
	7	49.720	1.313	47.137	52.302
	8	51.165	1.342	48.524	53.806
	9	52.841	1.423	50.043	55.640

High	10	53.183	1.468	50.296	56.070
	11	53.409	1.493	50.472	56.346
	12	53.659	1.450	50.806	56.511
	1	44.207	1.014	42.213	46.202
	2	44.610	1.135	42.376	46.843
	3	46.159	1.295	43.610	48.707
	4	47.354	1.588	44.230	50.478
	5	47.354	1.644	44.119	50.588
	6	47.951	1.776	44.457	51.445
	7	48.537	1.857	44.884	52.189
	8	48.280	1.898	44.546	52.015
	9	49.122	2.012	45.164	53.080
	10	50.890	2.075	46.807	54.973
	11	50.476	2.111	46.322	54.629
	12	51.195	2.051	47.161	55.229

### ***General Linear Model of Level of Working Capital for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	9901.299	11	900.118	8.225	.000	.025	1.000
Sphericity Assumed							



year * wlevel	Greenhouse-Geisser	9901.299	3.779	2619.938	8.225	.000	.025	.998
	Huynh-Feldt	9901.299	3.853	2569.935	8.225	.000	.025	.998
	Lower-bound	9901.299	1.000	9901.299	8.225	.004	.025	.816
	Sphericity Assumed	2298.198	22	104.464	.955	.521	.006	.779
	Greenhouse-Geisser	2298.198	7.558	304.058	.955	.467	.006	.438
	Huynh-Feldt	2298.198	7.705	298.255	.955	.468	.006	.443
	Lower-bound	2298.198	2.000	1149.099	.955	.386	.006	.215
Error(year)	Sphericity Assumed	391236.131	3575	109.437				
	Greenhouse-Geisser	391236.131	1228.244	318.533				
	Huynh-Feldt	391236.131	1252.141	312.454				
	Lower-bound	391236.131	325.000	1203.803				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	5956.104	1	5956.104	11.524	.001	.034	.923
	Quadratic	3211.102	1	3211.102	16.821	.000	.049	.983
	Cubic	12.012	1	12.012	.099	.754	.000	.061
year * wlevel	Linear	913.418	2	456.709	.884	.414	.005	.202
	Quadratic	518.123	2	259.062	1.357	.259	.008	.292
	Cubic	226.817	2	113.408	.932	.395	.006	.211
Error(year)	Linear	167968.236	325	516.825				
	Quadratic	62041.317	325	190.896				
	Cubic	39547.559	325	121.685				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wclevel	2050.269	2	1025.134	.478	.620	.003	.128
Error	696517.217	325	2143.130				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	45.870	.710	44.472	47.268
2	47.902	.822	46.286	49.519
3	48.488	.867	46.782	50.194
4	50.049	.919	48.240	51.857
5	50.894	.951	49.023	52.766
6	49.872	.931	48.041	51.703
7	50.884	.999	48.918	52.850
8	51.443	1.076	49.327	53.559
9	51.246	1.060	49.161	53.331
10	51.927	1.083	49.796	54.058
11	50.902	1.065	48.807	52.998
12	50.207	1.097	48.050	52.364

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.033(*)	.554	.019	-3.914	-.151
	3	-2.618(*)	.650	.005	-4.823	-.413
	4	-4.179(*)	.845	.000	-7.045	-1.313
	5	-5.024(*)	.840	.000	-7.874	-2.175
	6	-4.002(*)	.830	.000	-6.818	-1.186
	7	-5.014(*)	.882	.000	-8.006	-2.022
	8	-5.573(*)	1.003	.000	-8.976	-2.170
	9	-5.376(*)	.993	.000	-8.746	-2.006
	10	-6.057(*)	1.081	.000	-9.725	-2.389
	11	-5.033(*)	1.079	.000	-8.694	-1.371
	12	-4.337(*)	1.108	.007	-8.096	-.579
2	1	2.033(*)	.554	.019	.151	3.914
	3	-.585	.511	1.000	-2.318	1.147
	4	-2.146	.767	.302	-4.748	.456
	5	-2.992(*)	.812	.018	-5.748	-.236
	6	-1.970	.833	.712	-4.797	.858
	7	-2.982	.895	.062	-6.018	.055
	8	-3.541(*)	1.009	.033	-6.964	-.117
	9	-3.343	1.000	.059	-6.735	.048
	10	-4.024(*)	1.078	.015	-7.681	-.367
	11	-3.000	1.080	.319	-6.666	.666
	12	-2.305	1.110	.926	-6.071	1.461
3	1	2.618(*)	.650	.005	.413	4.823
	2	.585	.511	1.000	-1.147	2.318
	4	-1.561	.621	.562	-3.668	.546
	5	-2.407	.765	.112	-5.001	.188
	6	-1.384	.826	.999	-4.186	1.418
	7	-2.396	.863	.319	-5.324	.531
	8	-2.955	.965	.145	-6.229	.319

4	9	-2.758	.949	.228	-5.978	.462
	10	-3.439(*)	1.002	.044	-6.840	-.038
	11	-2.415	1.005	.674	-5.824	.995
	12	-1.720	1.038	.999	-5.240	1.801
	1	4.179(*)	.845	.000	1.313	7.045
	2	2.146	.767	.302	-.456	4.748
	3	1.561	.621	.562	-.546	3.668
	5	-.846	.574	1.000	-2.792	1.101
	6	.177	.819	1.000	-2.602	2.956
	7	-.835	.866	1.000	-3.774	2.103
	8	-1.394	.964	1.000	-4.664	1.875
	9	-1.197	.964	1.000	-4.468	2.074
5	10	-1.878	1.049	.994	-5.437	1.681
	11	-.854	1.054	1.000	-4.429	2.722
	12	-.159	1.088	1.000	-3.849	3.532
	1	5.024(*)	.840	.000	2.175	7.874
	2	2.992(*)	.812	.018	.236	5.748
	3	2.407	.765	.112	-.188	5.001
	4	.846	.574	1.000	-1.101	2.792
	6	1.022	.689	1.000	-1.317	3.362
	7	.010	.804	1.000	-2.719	2.739
	8	-.549	.951	1.000	-3.776	2.678
	9	-.352	.937	1.000	-3.531	2.828
	10	-1.033	1.060	1.000	-4.628	2.563
6	11	-.008	1.076	1.000	-3.659	3.642
	12	.687	1.127	1.000	-3.136	4.510
	1	4.002(*)	.830	.000	1.186	6.818
	2	1.970	.833	.712	-.858	4.797
	3	1.384	.826	.999	-1.418	4.186
	4	-.177	.819	1.000	-2.956	2.602
	5	-1.022	.689	1.000	-3.362	1.317
	7	-1.012	.471	.887	-2.611	.587
	8	-1.571	.678	.755	-3.871	.729

7	9	-1.374	.730	.984	-3.850	1.102
	10	-2.055	.877	.733	-5.032	.922
	11	-1.030	.931	1.000	-4.190	2.129
	12	-.335	.970	1.000	-3.625	2.954
	1	5.014(*)	.882	.000	2.022	8.006
	2	2.982	.895	.062	-.055	6.018
	3	2.396	.863	.319	-.531	5.324
	4	.835	.866	1.000	-2.103	3.774
	5	-.010	.804	1.000	-2.739	2.719
	6	1.012	.471	.887	-.587	2.611
	8	-.559	.543	1.000	-2.401	1.283
	9	-.362	.636	1.000	-2.519	1.796
8	10	-1.043	.809	1.000	-3.788	1.703
	11	-.018	.878	1.000	-2.997	2.960
	12	.677	.934	1.000	-2.492	3.846
	1	5.573(*)	1.003	.000	2.170	8.976
	2	3.541(*)	1.009	.033	.117	6.964
	3	2.955	.965	.145	-.319	6.229
	4	1.394	.964	1.000	-1.875	4.664
	5	.549	.951	1.000	-2.678	3.776
	6	1.571	.678	.755	-.729	3.871
	7	.559	.543	1.000	-1.283	2.401
	9	.197	.448	1.000	-1.323	1.718
	10	-.484	.662	1.000	-2.731	1.763
9	11	.541	.737	1.000	-1.960	3.041
	12	1.236	.804	1.000	-1.492	3.964
	1	5.376(*)	.993	.000	2.006	8.746
	2	3.343	1.000	.059	-.048	6.735
	3	2.758	.949	.228	-.462	5.978
	4	1.197	.964	1.000	-2.074	4.468
	5	.352	.937	1.000	-2.828	3.531
	6	1.374	.730	.984	-1.102	3.850
	7	.362	.636	1.000	-1.796	2.519

10	8	-.197	.448	1.000	-1.718	1.323
	10	-.681	.552	1.000	-2.554	1.193
	11	.343	.658	1.000	-1.889	2.576
	12	1.039	.735	1.000	-1.454	3.531
	1	6.057(*)	1.081	.000	2.389	9.725
	2	4.024(*)	1.078	.015	.367	7.681
	3	3.439(*)	1.002	.044	.038	6.840
	4	1.878	1.049	.994	-1.681	5.437
	5	1.033	1.060	1.000	-2.563	4.628
	6	2.055	.877	.733	-.922	5.032
	7	1.043	.809	1.000	-1.703	3.788
	8	.484	.662	1.000	-1.763	2.731
11	9	.681	.552	1.000	-1.193	2.554
	11	1.024	.391	.459	-.303	2.352
	12	1.720	.511	.055	-.015	3.454
	1	5.033(*)	1.079	.000	1.371	8.694
	2	3.000	1.080	.319	-.666	6.666
	3	2.415	1.005	.674	-.995	5.824
	4	.854	1.054	1.000	-2.722	4.429
	5	.008	1.076	1.000	-3.642	3.659
	6	1.030	.931	1.000	-2.129	4.190
	7	.018	.878	1.000	-2.960	2.997
	8	-.541	.737	1.000	-3.041	1.960
	9	-.343	.658	1.000	-2.576	1.889
12	10	-1.024	.391	.459	-2.352	.303
	12	.695	.316	.852	-.377	1.767
	1	4.337(*)	1.108	.007	.579	8.096
	2	2.305	1.110	.926	-1.461	6.071
	3	1.720	1.038	.999	-1.801	5.240
	4	.159	1.088	1.000	-3.532	3.849
	5	-.687	1.127	1.000	-4.510	3.136
	6	.335	.970	1.000	-2.954	3.625
	7	-.677	.934	1.000	-3.846	2.492

8	-1.236	.804	1.000	-3.964	1.492
9	-1.039	.735	1.000	-3.531	1.454
10	-1.720	.511	.055	-3.454	.015
11	-.695	.316	.852	-1.767	.377

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	49.008	1.476	46.105	51.911
Medium	49.874	1.044	47.822	51.927
High	51.039	1.476	48.135	53.942

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-.866	1.807	.950	-5.204	3.472
	High	-2.030	2.087	.701	-7.040	2.979
Medium	Low	.866	1.807	.950	-3.472	5.204
	High	-1.164	1.807	.889	-5.502	3.174
High	Low	2.030	2.087	.701	-2.979	7.040
	Medium	1.164	1.807	.889	-3.174	5.502

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	170.856	2	85.428	.478	.620	.003	.128
Error	58043.101	325	178.594				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	43.366	1.348	40.714	46.018
	2	45.805	1.559	42.738	48.872
	3	46.976	1.645	43.739	50.212
	4	49.707	1.744	46.276	53.138
	5	49.024	1.805	45.473	52.575
	6	48.244	1.766	44.770	51.718
	7	51.171	1.896	47.440	54.901
	8	50.488	2.041	46.472	54.503
	9	49.902	2.011	45.946	53.859
	10	51.463	2.055	47.420	55.506
	11	51.073	2.021	47.097	55.050
	12	50.878	2.080	46.785	54.971
Medium	1	45.122	.953	43.247	46.997
	2	47.707	1.102	45.539	49.876
	3	49.171	1.163	46.882	51.459
	4	50.341	1.233	47.915	52.768
	5	51.610	1.276	49.099	54.121



High	6	50.201	1.249	47.745	52.657
	7	50.604	1.341	47.966	53.242
	8	51.585	1.443	48.746	54.425
	9	51.287	1.422	48.489	54.084
	10	51.866	1.453	49.007	54.725
	11	50.061	1.429	47.249	52.873
	12	48.939	1.471	46.045	51.833
	1	49.122	1.348	46.470	51.774
	2	50.195	1.559	47.128	53.262
	3	49.317	1.645	46.081	52.553
	4	50.098	1.744	46.667	53.529
	5	52.049	1.805	48.498	55.600
	6	51.171	1.766	47.697	54.644
	7	50.878	1.896	47.147	54.609
	8	52.256	2.041	48.241	56.272
	9	52.549	2.011	48.592	56.506
	10	52.451	2.055	48.408	56.494
	11	51.573	2.021	47.597	55.550
	12	50.805	2.080	46.712	54.898

### ***General Linear Model of Level of Working Capital for Environment***

#### **Between-Subjects Factors**

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	1874.165	11	170.379	1.905	.034	.006	.895
	Greenhouse-Geisser	1874.165	4.990	375.596	1.905	.091	.006	.650
	Huynh-Feldt	1874.165	5.108	366.895	1.905	.089	.006	.658
	Lower-bound	1874.165	1.000	1874.165	1.905	.168	.006	.280
year * wlevel	Sphericity Assumed	2845.260	22	129.330	1.446	.082	.009	.949
	Greenhouse-Geisser	2845.260	9.980	285.105	1.446	.154	.009	.737
	Huynh-Feldt	2845.260	10.216	278.500	1.446	.152	.009	.745
	Lower-bound	2845.260	2.000	1422.630	1.446	.237	.009	.309
Error(year)	Sphericity Assumed	319773.121	3575	89.447				
	Greenhouse-Geisser	319773.121	1621.701	197.184				
	Huynh-Feldt	319773.121	1660.160	192.616				
	Lower-bound	319773.121	325.000	983.917				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	8.995	1	8.995	.028	.866	.000	.053
	Quadratic	44.254	1	44.254	.251	.617	.001	.079
	Cubic	656.466	1	656.466	5.166	.024	.016	.620
year * wlevel	Linear	1377.842	2	688.921	2.181	.115	.013	.445
	Quadratic	264.315	2	132.157	.750	.473	.005	.177
	Cubic	30.083	2	15.042	.118	.888	.001	.068
Error(year)	Linear	102639.083	325	315.813				
	Quadratic	57232.650	325	176.100				
	Cubic	41299.895	325	127.077				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wclevel	26874.188	2	13437.094	5.185	.006	.031	.826
Error	842328.428	325	2591.780				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.484	.848	49.816	53.151
2	50.502	.919	48.694	52.310
3	49.970	.985	48.032	51.907
4	49.557	1.018	47.554	51.560
5	50.167	.984	48.232	52.102
6	51.404	1.015	49.407	53.402
7	51.965	1.082	49.836	54.095
8	51.508	1.086	49.373	53.644
9	50.864	1.054	48.791	52.937
10	51.010	1.028	48.988	53.032
11	49.848	1.047	47.789	51.906
12	50.726	.967	48.824	52.628

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.982	.603	.999	-1.064	3.027
	3	1.514	.725	.919	-.944	3.973
	4	1.927	.792	.643	-.759	4.613
	5	1.317	.818	.999	-1.457	4.091
	6	.079	.823	1.000	-2.712	2.871
	7	-.482	.854	1.000	-3.381	2.417
	8	-.024	.885	1.000	-3.029	2.980
	9	.620	.927	1.000	-2.525	3.765
	10	.474	.861	1.000	-2.449	3.396
	11	1.636	.947	.997	-1.578	4.850
	12	.758	.922	1.000	-2.371	3.887
2	1	-.982	.603	.999	-3.027	1.064
	3	.533	.505	1.000	-1.181	2.246
	4	.945	.672	1.000	-1.333	3.224
	5	.335	.743	1.000	-2.187	2.857
	6	-.902	.838	1.000	-3.745	1.940
	7	-1.463	.867	.998	-4.406	1.479
	8	-1.006	.897	1.000	-4.048	2.036
	9	-.362	.909	1.000	-3.447	2.723
	10	-.508	.845	1.000	-3.376	2.360
	11	.654	.904	1.000	-2.414	3.723
	12	-.224	.905	1.000	-3.293	2.846
3	1	-1.514	.725	.919	-3.973	.944
	2	-.533	.505	1.000	-2.246	1.181
	4	.413	.632	1.000	-1.731	2.557
	5	-.197	.754	1.000	-2.754	2.360

4	6	-1.435	.836	.998	-4.273	1.403
	7	-1.996	.878	.794	-4.975	.983
	8	-1.539	.891	.997	-4.561	1.483
	9	-.894	.907	1.000	-3.971	2.183
	10	-1.041	.862	1.000	-3.965	1.884
	11	.122	.970	1.000	-3.169	3.413
	12	-.756	.964	1.000	-4.027	2.515
	1	-1.927	.792	.643	-4.613	.759
	2	-.945	.672	1.000	-3.224	1.333
	3	-.413	.632	1.000	-2.557	1.731
	5	-.610	.561	1.000	-2.512	1.292
	6	-1.848	.786	.725	-4.515	.820
5	7	-2.409	.867	.318	-5.350	.533
	8	-1.951	.895	.865	-4.987	1.085
	9	-1.307	.903	1.000	-4.371	1.757
	10	-1.453	.886	.999	-4.459	1.553
	11	-.291	.976	1.000	-3.603	3.022
	12	-1.169	.969	1.000	-4.457	2.120
	1	-1.317	.818	.999	-4.091	1.457
	2	-.335	.743	1.000	-2.857	2.187
	3	.197	.754	1.000	-2.360	2.754
	4	.610	.561	1.000	-1.292	2.512
	6	-1.238	.643	.976	-3.420	.944
	7	-1.799	.727	.601	-4.265	.667
6	8	-1.341	.785	.998	-4.005	1.322
	9	-.697	.778	1.000	-3.335	1.941
	10	-.843	.778	1.000	-3.482	1.795
	11	.319	.830	1.000	-2.498	3.136
	12	-.559	.846	1.000	-3.430	2.312
	1	-.079	.823	1.000	-2.871	2.712
	2	.902	.838	1.000	-1.940	3.745
	3	1.435	.836	.998	-1.403	4.273
	4	1.848	.786	.725	-.820	4.515

7	5	1.238	.643	.976	-.944	3.420
	7	-.561	.412	1.000	-1.961	.839
	8	-.104	.561	1.000	-2.006	1.799
	9	.541	.617	1.000	-1.552	2.633
	10	.394	.662	1.000	-1.852	2.641
	11	1.557	.823	.982	-1.235	4.349
	12	.679	.834	1.000	-2.150	3.507
	1	.482	.854	1.000	-2.417	3.381
	2	1.463	.867	.998	-1.479	4.406
	3	1.996	.878	.794	-.983	4.975
	4	2.409	.867	.318	-.533	5.350
	5	1.799	.727	.601	-.667	4.265
8	6	.561	.412	1.000	-.839	1.961
	8	.457	.436	1.000	-1.020	1.935
	9	1.102	.535	.933	-.713	2.916
	10	.955	.599	1.000	-1.076	2.986
	11	2.118	.791	.404	-.567	4.803
	12	1.240	.807	1.000	-1.497	3.976
	1	.024	.885	1.000	-2.980	3.029
	2	1.006	.897	1.000	-2.036	4.048
	3	1.539	.891	.997	-1.483	4.561
	4	1.951	.895	.865	-1.085	4.987
	5	1.341	.785	.998	-1.322	4.005
	6	.104	.561	1.000	-1.799	2.006
9	7	-.457	.436	1.000	-1.935	1.020
	9	.644	.398	.999	-.707	1.996
	10	.498	.508	1.000	-1.225	2.221
	11	1.661	.763	.869	-.929	4.250
	12	.783	.821	1.000	-2.002	3.567
	1	-.620	.927	1.000	-3.765	2.525
	2	.362	.909	1.000	-2.723	3.447
	3	.894	.907	1.000	-2.183	3.971
	4	1.307	.903	1.000	-1.757	4.371

10	5	.697	.778	1.000	-1.941	3.335
	6	-.541	.617	1.000	-2.633	1.552
	7	-1.102	.535	.933	-2.916	.713
	8	-.644	.398	.999	-1.996	.707
	10	-.146	.470	1.000	-1.741	1.448
	11	1.016	.693	1.000	-1.334	3.367
	12	.138	.748	1.000	-2.398	2.674
	1	-.474	.861	1.000	-3.396	2.449
	2	.508	.845	1.000	-2.360	3.376
	3	1.041	.862	1.000	-1.884	3.965
	4	1.453	.886	.999	-1.553	4.459
	5	.843	.778	1.000	-1.795	3.482
11	6	-.394	.662	1.000	-2.641	1.852
	7	-.955	.599	1.000	-2.986	1.076
	8	-.498	.508	1.000	-2.221	1.225
	9	.146	.470	1.000	-1.448	1.741
	11	1.163	.562	.929	-.744	3.069
	12	.285	.663	1.000	-1.964	2.533
	1	-1.636	.947	.997	-4.850	1.578
	2	-.654	.904	1.000	-3.723	2.414
	3	-.122	.970	1.000	-3.413	3.169
	4	.291	.976	1.000	-3.022	3.603
	5	-.319	.830	1.000	-3.136	2.498
	6	-1.557	.823	.982	-4.349	1.235
12	7	-2.118	.791	.404	-4.803	.567
	8	-1.661	.763	.869	-4.250	.929
	9	-1.016	.693	1.000	-3.367	1.334
	10	-1.163	.562	.929	-3.069	.744
	12	-.878	.538	.999	-2.703	.947
	1	-.758	.922	1.000	-3.887	2.371
	2	.224	.905	1.000	-2.846	3.293
	3	.756	.964	1.000	-2.515	4.027
	4	1.169	.969	1.000	-2.120	4.457

5	.559	.846	1.000	-2.312	3.430
6	-.679	.834	1.000	-3.507	2.150
7	-1.240	.807	1.000	-3.976	1.497
8	-.783	.821	1.000	-3.567	2.002
9	-.138	.748	1.000	-2.674	2.398
10	-.285	.663	1.000	-2.533	1.964
11	.878	.538	.999	-.947	2.703

Based on estimated marginal means

a. Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.429	1.623	47.236	53.622
Medium	47.726	1.148	45.468	49.983
High	54.097	1.623	50.904	57.289

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	2.703	1.988	.438	-2.067	7.474
	High	-3.668	2.295	.297	-9.176	1.841
Medium	Low	-2.703	1.988	.438	-7.474	2.067
	High	-6.371(*)	1.988	.004	-11.142	-1.600
High	Low	3.668	2.295	.297	-1.841	9.176



Medium	6.371(*)	1.988	.004	1.600	11.142
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Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2239.516	2	1119.758	5.185	.006	.031	.826
Error	70194.036	325	215.982				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Low	1	51.744	1.608	48.580	54.907
	2	51.415	1.743	47.985	54.845
	3	50.390	1.868	46.715	54.066
	4	49.744	1.932	45.944	53.544
	5	50.244	1.866	46.573	53.915
	6	52.207	1.926	48.418	55.997
	7	52.305	2.054	48.265	56.345
	8	50.671	2.060	46.619	54.723
	9	49.866	1.999	45.933	53.799
	10	50.171	1.950	46.335	54.007
	11	48.390	1.986	44.484	52.297
	12	48.000	1.834	44.391	51.609
Medium	1	48.585	1.137	46.348	50.822
	2	46.177	1.233	43.752	48.602

High	3	45.811	1.321	43.212	48.410
	4	45.951	1.366	43.264	48.638
	5	46.866	1.320	44.270	49.462
	6	48.506	1.362	45.826	51.186
	7	48.860	1.452	46.003	51.717
	8	49.134	1.456	46.269	51.999
	9	48.726	1.414	45.945	51.507
	10	48.128	1.379	45.416	50.840
	11	46.213	1.404	43.451	48.976
	12	49.750	1.297	47.198	52.302
	1	54.122	1.608	50.958	57.285
	2	53.915	1.743	50.485	57.345
	3	53.707	1.868	50.032	57.383
	4	52.976	1.932	49.176	56.775
	5	53.390	1.866	49.719	57.062
	6	53.500	1.926	49.710	57.290
	7	54.732	2.054	50.692	58.772
	8	54.720	2.060	50.668	58.772
	9	54.000	1.999	50.067	57.933
	10	54.732	1.950	50.896	58.568
	11	54.939	1.986	51.033	58.846
	12	54.427	1.834	50.818	58.036

### ***General Linear Model of Level of Working Capital for Product***

#### **Between-Subjects Factors**

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164

3	High	82
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#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	10324.874	11	938.625	10.975	.000	.033	1.000
	Greenhouse-Geisser	10324.874	3.474	2971.862	10.975	.000	.033	1.000
	Huynh-Feldt	10324.874	3.538	2918.324	10.975	.000	.033	1.000
	Lower-bound	10324.874	1.000	10324.874	10.975	.001	.033	.910
year * wcleve	Sphericity Assumed	3762.120	22	171.005	2.000	.004	.012	.994
	Greenhouse-Geisser	3762.120	6.948	541.435	2.000	.053	.012	.783
	Huynh-Feldt	3762.120	7.076	531.681	2.000	.051	.012	.789
	Lower-bound	3762.120	2.000	1881.060	2.000	.137	.012	.412
Error(year)	Sphericity Assumed	305740.396	3575	85.522				
	Greenhouse-Geisser	305740.396	1129.119	270.778				
	Huynh-Feldt	305740.396	1149.833	265.900				
	Lower-bound	305740.396	325.000	940.740				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	9305.638	1	9305.638	21.130	.000	.061	.996
	Quadratic	631.819	1	631.819	4.252	.040	.013	.538
	Cubic	.990	1	.990	.010	.919	.000	.051
year * wcleve	Linear	2033.018	2	1016.509	2.308	.101	.014	.467
	Quadratic	755.777	2	377.889	2.543	.080	.015	.507
	Cubic	56.802	2	28.401	.299	.742	.002	.097
Error(year)	Linear	143132.171	325	440.407				

Quadratic	48292.172	325	148.591				
Cubic	30918.450	325	95.134				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wclevel	39110.831	2	19555.416	8.658	.000	.051	.968
Error	734048.799	325	2258.612				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.880	.821	50.265	53.495
2	52.299	.881	50.565	54.032
3	52.535	.861	50.841	54.228
4	51.518	.925	49.699	53.337
5	51.557	.876	49.834	53.280
6	50.715	.898	48.948	52.483
7	50.197	.960	48.309	52.086
8	49.850	.980	47.922	51.778
9	49.520	.989	47.575	51.466

10	49.319	1.017	47.318	51.320
11	47.941	1.068	45.841	50.041
12	46.705	1.088	44.564	48.846

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.419	.553	1.000	-2.295	1.457
	3	-.654	.623	1.000	-2.769	1.460
	4	.362	.736	1.000	-2.134	2.857
	5	.323	.785	1.000	-2.339	2.985
	6	1.165	.823	1.000	-1.629	3.958
	7	1.683	.904	.987	-1.384	4.750
	8	2.030	.897	.803	-1.015	5.076
	9	2.360	.929	.534	-.791	5.511
	10	2.561	.921	.315	-.563	5.685
	11	3.939(*)	1.024	.010	.464	7.414
	12	5.175(*)	1.050	.000	1.611	8.739
2	1	.419	.553	1.000	-1.457	2.295
	3	-.236	.427	1.000	-1.683	1.211
	4	.780	.661	1.000	-1.462	3.023
	5	.742	.754	1.000	-1.816	3.300
	6	1.583	.802	.964	-1.138	4.305
	7	2.102	.883	.695	-.893	5.096
	8	2.449	.889	.336	-.566	5.465
	9	2.778	.919	.164	-.340	5.897
	10	2.980	.926	.090	-.164	6.123
	11	4.358(*)	1.029	.002	.868	7.848
	12	5.593(*)	1.067	.000	1.972	9.215

3	1	.654	.623	1.000	-1.460	2.769
	2	.236	.427	1.000	-1.211	1.683
	4	1.016	.538	.983	-.809	2.841
	5	.978	.663	1.000	-1.271	3.226
	6	1.819	.759	.679	-.755	4.394
	7	2.337	.845	.328	-.531	5.205
	8	2.685	.845	.101	-.180	5.550
	9	3.014	.897	.056	-.031	6.059
	10	3.215(*)	.924	.037	.081	6.350
	11	4.593(*)	1.012	.001	1.159	8.028
	12	5.829(*)	1.040	.000	2.301	9.357
4	1	-.362	.736	1.000	-2.857	2.134
	2	-.780	.661	1.000	-3.023	1.462
	3	-1.016	.538	.983	-2.841	.809
	5	-.039	.505	1.000	-1.754	1.677
	6	.803	.670	1.000	-1.472	3.078
	7	1.321	.764	.997	-1.271	3.913
	8	1.669	.803	.925	-1.056	4.393
	9	1.998	.870	.773	-.953	4.949
	10	2.199	.892	.612	-.829	5.227
	11	3.577(*)	.986	.022	.233	6.922
	12	4.813(*)	1.009	.000	1.390	8.236
5	1	-.323	.785	1.000	-2.985	2.339
	2	-.742	.754	1.000	-3.300	1.816
	3	-.978	.663	1.000	-3.226	1.271
	4	.039	.505	1.000	-1.677	1.754
	6	.841	.487	.997	-.812	2.495
	7	1.360	.624	.867	-.759	3.478
	8	1.707	.682	.574	-.608	4.023
	9	2.037	.762	.407	-.548	4.622
	10	2.238	.789	.276	-.441	4.916
	11	3.616(*)	.863	.002	.686	6.545
	12	4.852(*)	.894	.000	1.819	7.884

6	1	-1.165	.823	1.000	-3.958	1.629
	2	-1.583	.802	.964	-4.305	1.138
	3	-1.819	.759	.679	-4.394	.755
	4	-.803	.670	1.000	-3.078	1.472
	5	-.841	.487	.997	-2.495	.812
	7	.518	.411	1.000	-.875	1.911
	8	.866	.516	.999	-.886	2.618
	9	1.195	.615	.972	-.890	3.280
	10	1.396	.648	.883	-.804	3.597
	11	2.774(*)	.758	.019	.202	5.347
	12	4.010(*)	.785	.000	1.346	6.674
7	1	-1.683	.904	.987	-4.750	1.384
	2	-2.102	.883	.695	-5.096	.893
	3	-2.337	.845	.328	-5.205	.531
	4	-1.321	.764	.997	-3.913	1.271
	5	-1.360	.624	.867	-3.478	.759
	6	-.518	.411	1.000	-1.911	.875
	8	.348	.345	1.000	-.823	1.518
	9	.677	.513	1.000	-1.063	2.417
	10	.878	.614	1.000	-1.205	2.961
	11	2.256	.727	.129	-.212	4.724
	12	3.492(*)	.765	.000	.896	6.087
8	1	-2.030	.897	.803	-5.076	1.015
	2	-2.449	.889	.336	-5.465	.566
	3	-2.685	.845	.101	-5.550	.180
	4	-1.669	.803	.925	-4.393	1.056
	5	-1.707	.682	.574	-4.023	.608
	6	-.866	.516	.999	-2.618	.886
	7	-.348	.345	1.000	-1.518	.823
	9	.329	.381	1.000	-.962	1.620
	10	.530	.526	1.000	-1.253	2.314
	11	1.909	.661	.239	-.334	4.151
	12	3.144(*)	.716	.001	.713	5.575

9	1	-2.360	.929	.534	-5.511	.791
	2	-2.778	.919	.164	-5.897	.340
	3	-3.014	.897	.056	-6.059	.031
	4	-1.998	.870	.773	-4.949	.953
	5	-2.037	.762	.407	-4.622	.548
	6	-1.195	.615	.972	-3.280	.890
	7	-.677	.513	1.000	-2.417	1.063
	8	-.329	.381	1.000	-1.620	.962
	10	.201	.382	1.000	-1.095	1.498
	11	1.579	.548	.245	-.281	3.440
	12	2.815(*)	.634	.001	.664	4.966
	10	-2.561	.921	.315	-5.685	.563
10	2	-2.980	.926	.090	-6.123	.164
	3	-3.215(*)	.924	.037	-6.350	-.081
	4	-2.199	.892	.612	-5.227	.829
	5	-2.238	.789	.276	-4.916	.441
	6	-1.396	.648	.883	-3.597	.804
	7	-.878	.614	1.000	-2.961	1.205
	8	-.530	.526	1.000	-2.314	1.253
	9	-.201	.382	1.000	-1.498	1.095
	11	1.378	.423	.080	-.059	2.815
	12	2.614(*)	.538	.000	.787	4.441
	11	-3.939(*)	1.024	.010	-7.414	-.464
	2	-4.358(*)	1.029	.002	-7.848	-.868
11	3	-4.593(*)	1.012	.001	-8.028	-1.159
	4	-3.577(*)	.986	.022	-6.922	-.233
	5	-3.616(*)	.863	.002	-6.545	-.686
	6	-2.774(*)	.758	.019	-5.347	-.202
	7	-2.256	.727	.129	-4.724	.212
	8	-1.909	.661	.239	-4.151	.334
	9	-1.579	.548	.245	-3.440	.281
	10	-1.378	.423	.080	-2.815	.059
	12	1.236(*)	.358	.041	.020	2.452



12	1	-5.175(*)	1.050	.000	-8.739	-1.611
	2	-5.593(*)	1.067	.000	-9.215	-1.972
	3	-5.829(*)	1.040	.000	-9.357	-2.301
	4	-4.813(*)	1.009	.000	-8.236	-1.390
	5	-4.852(*)	.894	.000	-7.884	-1.819
	6	-4.010(*)	.785	.000	-6.674	-1.346
	7	-3.492(*)	.765	.000	-6.087	-.896
	8	-3.144(*)	.716	.001	-5.575	-.713
	9	-2.815(*)	.634	.001	-4.966	-.664
	10	-2.614(*)	.538	.000	-4.441	-.787
	11	-1.236(*)	.358	.041	-2.452	-.020

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	47.077	1.515	44.097	50.058
Medium	48.670	1.071	46.562	50.777
High	55.262	1.515	52.282	58.243

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

Low	Medium	-1.592	1.856	.775	-6.046	2.861
	High	-8.185(*)	2.143	.000	-13.327	-3.043
Medium	Low	1.592	1.856	.775	-2.861	6.046
	High	-6.592(*)	1.856	.001	-11.046	-2.139
High	Low	8.185(*)	2.143	.000	3.043	13.327
	Medium	6.592(*)	1.856	.001	2.139	11.046

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3259.236	2	1629.618	8.658	.000	.051	.968
Error	61170.733	325	188.218				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	48.195	1.557	45.131	51.259
	2	48.427	1.672	45.138	51.716
	3	48.780	1.633	45.568	51.993
	4	48.293	1.754	44.842	51.744
	5	49.232	1.662	45.963	52.501
	6	49.585	1.705	46.232	52.939
	7	47.963	1.821	44.380	51.547
	8	46.451	1.859	42.793	50.109
	9	45.524	1.876	41.833	49.215

Medium	10	45.634	1.930	41.838	49.430
	11	44.000	2.026	40.015	47.985
	12	42.841	2.065	38.779	46.904
	1	52.006	1.101	49.840	54.173
	2	52.311	1.182	49.985	54.637
	3	52.311	1.155	50.039	54.583
	4	50.677	1.240	48.237	53.117
	5	48.805	1.175	46.493	51.116
	6	48.280	1.205	45.909	50.652
	7	47.872	1.288	45.338	50.406
	8	47.293	1.315	44.706	49.879
	9	47.585	1.327	44.976	50.195
High	10	46.872	1.365	44.188	49.556
	11	45.421	1.432	42.603	48.239
	12	44.604	1.460	41.731	47.476
	1	55.439	1.557	52.375	58.503
	2	56.159	1.672	52.869	59.448
	3	56.512	1.633	53.300	59.725
	4	55.585	1.754	52.134	59.036
	5	56.634	1.662	53.365	59.903
	6	54.280	1.705	50.927	57.634
	7	54.756	1.821	51.173	58.339
	8	55.805	1.859	52.147	59.463
	9	55.451	1.876	51.760	59.142
	10	55.451	1.930	51.655	59.247
	11	54.402	2.026	50.417	58.387
	12	52.671	2.065	48.609	56.733

## ***General Linear Model of Level of Working Capital for Corporate Governance***

**Between-Subjects Factors**

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164
	3	High	82

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	36581.836	11	3325.621	24.992	.000	.071	1.000
	Greenhouse-Geisser	36581.836	5.586	6548.992	24.992	.000	.071	1.000
	Huynh-Feldt	36581.836	5.730	6384.532	24.992	.000	.071	1.000
	Lower-bound	36581.836	1.000	36581.836	24.992	.000	.071	.999
year * wlevel	Sphericity Assumed	6390.914	22	290.496	2.183	.001	.013	.997
	Greenhouse-Geisser	6390.914	11.172	572.060	2.183	.013	.013	.940
	Huynh-Feldt	6390.914	11.460	557.695	2.183	.012	.013	.944
	Lower-bound	6390.914	2.000	3195.457	2.183	.114	.013	.445
Error(year)	Sphericity Assumed	475720.917	3575	133.069				
	Greenhouse-Geisser	475720.917	1815.409	262.046				
	Huynh-Feldt	475720.917	1862.172	255.466				
	Lower-bound	475720.917	325.000	1463.757				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	33817.779	1	33817.779	71.670	.000	.181	1.000
	Quadratic	113.854	1	113.854	.511	.475	.002	.110
	Cubic	553.418	1	553.418	3.663	.056	.011	.479

year * wlevel	Linear	3874.793	2	1937.396	4.106	.017	.025	.725
	Quadratic	1092.787	2	546.394	2.454	.088	.015	.492
	Cubic	32.451	2	16.225	.107	.898	.001	.066
	Linear	153353.419	325	471.857				
	Quadratic	72358.789	325	222.642				
	Cubic	49097.409	325	151.069				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wlevel	16978.489	2	8489.244	5.114	.007	.031	.821
Error	539509.486	325	1660.029				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.075	.357	55.373	56.778
2	55.600	.643	54.335	56.865
3	53.750	.761	52.253	55.247
4	52.085	.919	50.277	53.894
5	50.130	.954	48.253	52.007

6	51.557	.985	49.619	53.495
7	50.923	1.043	48.870	52.975
8	48.413	1.097	46.255	50.571
9	50.024	1.050	47.959	52.089
10	47.593	1.064	45.501	49.686
11	46.457	1.048	44.396	48.518
12	45.665	1.055	43.589	47.740

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.476	.588	1.000	-1.520	2.471
	3	2.325	.751	.132	-.224	4.874
	4	3.990(*)	.940	.002	.800	7.179
	5	5.945(*)	.980	.000	2.619	9.271
	6	4.518(*)	1.018	.001	1.065	7.972
	7	5.152(*)	1.090	.000	1.455	8.849
	8	7.663(*)	1.125	.000	3.845	11.480
	9	6.051(*)	1.072	.000	2.412	9.690
	10	8.482(*)	1.115	.000	4.699	12.264
	11	9.618(*)	1.101	.000	5.882	13.354
	12	10.411(*)	1.103	.000	6.668	14.153
2	1	-.476	.588	1.000	-2.471	1.520
	3	1.850	.593	.122	-.162	3.861
	4	3.514(*)	.818	.002	.739	6.289
	5	5.470(*)	.886	.000	2.464	8.475
	6	4.043(*)	.928	.001	.895	7.191
	7	4.677(*)	1.025	.000	1.198	8.155
	8	7.187(*)	1.045	.000	3.643	10.731

3	9	5.575(*)	1.061	.000	1.976	9.174
	10	8.006(*)	1.099	.000	4.278	11.734
	11	9.142(*)	1.085	.000	5.463	12.822
	12	9.935(*)	1.103	.000	6.191	13.678
	1	-2.325	.751	.132	-4.874	.224
	2	-1.850	.593	.122	-3.861	.162
	4	1.665	.768	.874	-.940	4.270
	5	3.620(*)	.837	.001	.781	6.459
	6	2.193	.934	.726	-.975	5.361
	7	2.827	1.058	.408	-.763	6.418
	8	5.337(*)	1.055	.000	1.759	8.916
	9	3.726(*)	1.089	.045	.030	7.421
4	10	6.157(*)	1.147	.000	2.263	10.050
	11	7.293(*)	1.114	.000	3.513	11.072
	12	8.085(*)	1.131	.000	4.249	11.922
	1	-3.990(*)	.940	.002	-7.179	-.800
	2	-3.514(*)	.818	.002	-6.289	-.739
	3	-1.665	.768	.874	-4.270	.940
	5	1.955	.653	.177	-.260	4.170
	6	.528	.903	1.000	-2.534	3.591
	7	1.163	.977	1.000	-2.153	4.479
	8	3.673(*)	1.001	.019	.275	7.071
	9	2.061	1.059	.971	-1.532	5.654
	10	4.492(*)	1.067	.002	.872	8.112
5	11	5.628(*)	1.020	.000	2.167	9.089
	12	6.421(*)	1.027	.000	2.936	9.906
	1	-5.945(*)	.980	.000	-9.271	-2.619
	2	-5.470(*)	.886	.000	-8.475	-2.464
	3	-3.620(*)	.837	.001	-6.459	-.781
	4	-1.955	.653	.177	-4.170	.260
	6	-1.427	.789	.993	-4.104	1.250
	7	-.793	.883	1.000	-3.789	2.204
	8	1.717	.901	.980	-1.341	4.776

6	9	.106	.967	1.000	-3.175	3.386
	10	2.537	.981	.490	-.791	5.865
	11	3.673(*)	.939	.007	.486	6.860
	12	4.465(*)	.945	.000	1.258	7.673
	1	-4.518(*)	1.018	.001	-7.972	-1.065
	2	-4.043(*)	.928	.001	-7.191	-.895
	3	-2.193	.934	.726	-5.361	.975
	4	-.528	.903	1.000	-3.591	2.534
	5	1.427	.789	.993	-1.250	4.104
	7	.634	.740	1.000	-1.875	3.143
	8	3.144(*)	.901	.036	.088	6.200
	9	1.533	1.004	1.000	-1.873	4.938
7	10	3.963(*)	1.006	.007	.550	7.376
	11	5.100(*)	1.009	.000	1.675	8.524
	12	5.892(*)	1.018	.000	2.437	9.348
	1	-5.152(*)	1.090	.000	-8.849	-1.455
	2	-4.677(*)	1.025	.000	-8.155	-1.198
	3	-2.827	1.058	.408	-6.418	.763
	4	-1.163	.977	1.000	-4.479	2.153
	5	.793	.883	1.000	-2.204	3.789
	6	-.634	.740	1.000	-3.143	1.875
	8	2.510	.787	.098	-.159	5.180
	9	.898	.931	1.000	-2.260	4.057
	10	3.329	.993	.057	-.038	6.697
8	11	4.465(*)	.954	.000	1.230	7.701
	12	5.258(*)	.964	.000	1.988	8.528
	1	-7.663(*)	1.125	.000	-11.480	-3.845
	2	-7.187(*)	1.045	.000	-10.731	-3.643
	3	-5.337(*)	1.055	.000	-8.916	-1.759
	4	-3.673(*)	1.001	.019	-7.071	-.275
	5	-1.717	.901	.980	-4.776	1.341
	6	-3.144(*)	.901	.036	-6.200	-.088
	7	-2.510	.787	.098	-5.180	.159



9	9	-1.612	.755	.894	-4.173	.949
	10	.819	.923	1.000	-2.311	3.949
	11	1.955	.929	.912	-1.197	5.108
	12	2.748	.948	.233	-.470	5.966
	1	-6.051(*)	1.072	.000	-9.690	-2.412
	2	-5.575(*)	1.061	.000	-9.174	-1.976
	3	-3.726(*)	1.089	.045	-7.421	-.030
	4	-2.061	1.059	.971	-5.654	1.532
	5	-.106	.967	1.000	-3.386	3.175
	6	-1.533	1.004	1.000	-4.938	1.873
	7	-.898	.931	1.000	-4.057	2.260
	8	1.612	.755	.894	-.949	4.173
10	10	2.431	.764	.100	-.161	5.023
	11	3.567(*)	.860	.003	.648	6.486
	12	4.360(*)	.903	.000	1.296	7.424
	1	-8.482(*)	1.115	.000	-12.264	-4.699
	2	-8.006(*)	1.099	.000	-11.734	-4.278
	3	-6.157(*)	1.147	.000	-10.050	-2.263
	4	-4.492(*)	1.067	.002	-8.112	-.872
	5	-2.537	.981	.490	-5.865	.791
	6	-3.963(*)	1.006	.007	-7.376	-.550
	7	-3.329	.993	.057	-6.697	.038
	8	-.819	.923	1.000	-3.949	2.311
	9	-2.431	.764	.100	-5.023	.161
11	11	1.136	.606	.985	-.919	3.192
	12	1.929	.682	.281	-.386	4.244
	1	-9.618(*)	1.101	.000	-13.354	-5.882
	2	-9.142(*)	1.085	.000	-12.822	-5.463
	3	-7.293(*)	1.114	.000	-11.072	-3.513
	4	-5.628(*)	1.020	.000	-9.089	-2.167
	5	-3.673(*)	.939	.007	-6.860	-.486
	6	-5.100(*)	1.009	.000	-8.524	-1.675
	7	-4.465(*)	.954	.000	-7.701	-1.230

12	8	-1.955	.929	.912	-5.108	1.197
	9	-3.567(*)	.860	.003	-6.486	-.648
	10	-1.136	.606	.985	-3.192	.919
	12	.793	.383	.930	-.508	2.094
	1	-10.411(*)	1.103	.000	-14.153	-6.668
	2	-9.935(*)	1.103	.000	-13.678	-6.191
	3	-8.085(*)	1.131	.000	-11.922	-4.249
	4	-6.421(*)	1.027	.000	-9.906	-2.936
	5	-4.465(*)	.945	.000	-7.673	-1.258
	6	-5.892(*)	1.018	.000	-9.348	-2.437
	7	-5.258(*)	.964	.000	-8.528	-1.988
	8	-2.748	.948	.233	-5.966	.470
	9	-4.360(*)	.903	.000	-7.424	-1.296
	10	-1.929	.682	.281	-4.244	.386
	11	-.793	.383	.930	-2.094	.508

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.545	1.299	45.989	51.100
Medium	49.588	.918	47.782	51.395
High	53.935	1.299	51.380	56.490

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.044	1.591	.884	-4.862	2.774
	High	-5.390(*)	1.837	.011	-9.799	-.982
Medium	Low	1.044	1.591	.884	-2.774	4.862
	High	-4.347(*)	1.591	.020	-8.165	-.529
High	Low	5.390(*)	1.837	.011	.982	9.799
	Medium	4.347(*)	1.591	.020	.529	8.165

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1414.874	2	707.437	5.114	.007	.031	.821
Error	44959.124	325	138.336				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	55.415	.678	54.082	56.748
	2	53.829	1.220	51.429	56.229
	3	51.134	1.444	48.293	53.975
	4	50.500	1.744	47.069	53.931
	5	48.122	1.810	44.560	51.684

Medium	6	50.341	1.869	46.665	54.018
	7	48.122	1.980	44.227	52.016
	8	46.537	2.081	42.442	50.631
	9	47.805	1.992	43.887	51.723
	10	44.634	2.019	40.663	48.605
	11	43.207	1.988	39.297	47.117
	12	42.890	2.002	38.952	46.828
	1	57.396	.479	56.454	58.339
	2	56.445	.863	54.748	58.142
	3	53.591	1.021	51.582	55.601
	4	51.293	1.233	48.866	53.719
	5	48.598	1.280	46.079	51.116
High	6	50.024	1.321	47.425	52.624
	7	49.866	1.400	47.112	52.620
	8	46.457	1.472	43.562	49.352
	9	46.061	1.408	43.290	48.832
	10	46.220	1.427	43.412	49.028
	11	45.030	1.405	42.266	47.795
	12	44.079	1.415	41.295	46.864
	1	55.415	.678	54.082	56.748
	2	56.524	1.220	54.124	58.925
	3	56.524	1.444	53.683	59.366
	4	54.463	1.744	51.032	57.895
	5	53.671	1.810	50.109	57.232
	6	54.305	1.869	50.628	57.981
	7	54.780	1.980	50.886	58.675
	8	52.244	2.081	48.150	56.338
	9	56.207	1.992	52.289	60.126
	10	51.927	2.019	47.956	55.898
	11	51.134	1.988	47.224	55.044
	12	50.024	2.002	46.087	53.962

## General Linear Model of Level of Working Capital for Total CSR

### Between-Subjects Factors

		Value Label	N
Working Capital Level	1	Low	82
	2	Medium	164
	3	High	82

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	38806.231	11	3527.839	5.786	.000	.017	1.000
	Greenhouse-Geisser	38806.231	4.685	8283.435	5.786	.000	.017	.992
	Huynh-Feldt	38806.231	4.791	8099.902	5.786	.000	.017	.993
	Lower-bound	38806.231	1.000	38806.231	5.786	.017	.017	.669
year * wclevel	Sphericity Assumed	15295.697	22	695.259	1.140	.294	.007	.867
	Greenhouse-Geisser	15295.697	9.370	1632.481	1.140	.330	.007	.587
	Huynh-Feldt	15295.697	9.582	1596.311	1.140	.329	.007	.595
	Lower-bound	15295.697	2.000	7647.849	1.140	.321	.007	.250
Error(year)	Sphericity Assumed	2179861.459	3575	609.751				
	Greenhouse-Geisser	2179861.459	1522.560	1431.708				
	Huynh-Feldt	2179861.459	1557.059	1399.987				
	Lower-bound	2179861.459	325.000	6707.266				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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year	Linear	17872.393	1	17872.393	7.349	.007	.022	.771
	Quadratic	16718.408	1	16718.408	13.478	.000	.040	.955
	Cubic	146.639	1	146.639	.212	.645	.001	.075
year * wlevel	Linear	2651.103	2	1325.551	.545	.580	.003	.140
	Quadratic	3898.447	2	1949.224	1.571	.209	.010	.332
	Cubic	105.400	2	52.700	.076	.927	.000	.062
Error(year)	Linear	790342.120	325	2431.822				
	Quadratic	403142.295	325	1240.438				
	Cubic	224546.927	325	690.914				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
wlevel	227048.065	2	113524.033	6.089	.003	.036	.885
Error	6059552.870	325	18644.778				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	299.600	2.209	295.254	303.945
2	302.976	2.416	298.222	307.729

3	302.951	2.611	297.815	308.087
4	301.610	2.716	296.266	306.954
5	302.636	2.683	297.358	307.914
6	302.628	2.583	297.547	307.710
7	304.360	2.776	298.899	309.821
8	300.024	2.841	294.435	305.614
9	300.449	2.788	294.965	305.934
10	299.299	2.749	293.890	304.707
11	294.573	2.831	289.003	300.143
12	292.963	2.824	287.408	298.519

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-3.376	1.291	.461	-7.755	1.003
	3	-3.352	1.612	.925	-8.822	2.119
	4	-2.010	2.027	1.000	-8.887	4.867
	5	-3.037	2.154	1.000	-10.346	4.273
	6	-3.028	2.255	1.000	-10.678	4.622
	7	-4.760	2.404	.962	-12.915	3.395
	8	-.425	2.496	1.000	-8.894	8.045
	9	-.850	2.397	1.000	-8.981	7.282
	10	.301	2.390	1.000	-7.809	8.411
	11	5.026	2.558	.967	-3.653	13.706
	12	6.636	2.567	.491	-2.073	15.346
	2	3.376	1.291	.461	-1.003	7.755
2	3	.024	1.238	1.000	-4.178	4.226
	4	1.366	1.798	1.000	-4.736	7.468
	5	.339	2.038	1.000	-6.575	7.254
	6					

3	6	.348	2.164	1.000	-6.996	7.691
	7	-1.384	2.332	1.000	-9.298	6.530
	8	2.951	2.343	1.000	-4.999	10.902
	9	2.526	2.327	1.000	-5.371	10.424
	10	3.677	2.315	1.000	-4.179	11.532
	11	8.402(*)	2.448	.044	.098	16.707
	12	10.012(*)	2.450	.004	1.700	18.325
	1	3.352	1.612	.925	-2.119	8.822
	2	-.024	1.238	1.000	-4.226	4.178
	4	1.341	1.620	1.000	-4.156	6.839
	5	.315	2.025	1.000	-6.556	7.186
	6	.323	2.137	1.000	-6.929	7.575
4	7	-1.409	2.346	1.000	-9.369	6.552
	8	2.927	2.335	1.000	-4.995	10.849
	9	2.502	2.323	1.000	-5.379	10.383
	10	3.652	2.338	1.000	-4.280	11.585
	11	8.378(*)	2.412	.038	.193	16.563
	12	9.988(*)	2.399	.003	1.848	18.127
	1	2.010	2.027	1.000	-4.867	8.887
	2	-1.366	1.798	1.000	-7.468	4.736
	3	-1.341	1.620	1.000	-6.839	4.156
	5	-1.026	1.365	1.000	-5.657	3.605
	6	-1.018	1.819	1.000	-7.189	5.153
	7	-2.750	1.985	1.000	-9.486	3.986
5	8	1.585	2.087	1.000	-5.497	8.668
	9	1.161	2.170	1.000	-6.201	8.522
	10	2.311	2.199	1.000	-5.150	9.772
	11	7.037	2.332	.166	-.876	14.949
	12	8.646(*)	2.266	.011	.957	16.336
	1	3.037	2.154	1.000	-4.273	10.346
	2	-.339	2.038	1.000	-7.254	6.575
	3	-.315	2.025	1.000	-7.186	6.556
	4	1.026	1.365	1.000	-3.605	5.657



6	6	.008	1.548	1.000	-5.244	5.260
	7	-1.724	1.812	1.000	-7.871	4.424
	8	2.612	2.027	1.000	-4.264	9.488
	9	2.187	2.085	1.000	-4.889	9.263
	10	3.337	2.167	1.000	-4.014	10.689
	11	8.063(*)	2.315	.037	.208	15.918
	12	9.673(*)	2.278	.002	1.945	17.400
	1	3.028	2.255	1.000	-4.622	10.678
	2	-.348	2.164	1.000	-7.691	6.996
	3	-.323	2.137	1.000	-7.575	6.929
	4	1.018	1.819	1.000	-5.153	7.189
	5	-.008	1.548	1.000	-5.260	5.244
7	7	-1.732	1.276	1.000	-6.060	2.597
	8	2.604	1.655	1.000	-3.010	8.218
	9	2.179	1.796	1.000	-3.914	8.272
	10	3.329	1.974	.998	-3.370	10.028
	11	8.055(*)	2.216	.021	.537	15.573
	12	9.665(*)	2.192	.001	2.227	17.102
	1	4.760	2.404	.962	-3.395	12.915
	2	1.384	2.332	1.000	-6.530	9.298
	3	1.409	2.346	1.000	-6.552	9.369
	4	2.750	1.985	1.000	-3.986	9.486
	5	1.724	1.812	1.000	-4.424	7.871
	6	1.732	1.276	1.000	-2.597	6.060
8	8	4.335	1.441	.171	-.554	9.225
	9	3.911	1.645	.699	-1.671	9.492
	10	5.061	1.888	.401	-1.345	11.467
	11	9.787(*)	2.178	.001	2.395	17.178
	12	11.396(*)	2.180	.000	3.998	18.795
	1	.425	2.496	1.000	-8.045	8.894
	2	-2.951	2.343	1.000	-10.902	4.999
	3	-2.927	2.335	1.000	-10.849	4.995
	4	-1.585	2.087	1.000	-8.668	5.497

9	5	-2.612	2.027	1.000	-9.488	4.264
	6	-2.604	1.655	1.000	-8.218	3.010
	7	-4.335	1.441	.171	-9.225	.554
	9	-.425	1.213	1.000	-4.541	3.692
	10	.726	1.628	1.000	-4.798	6.249
	11	5.451	1.868	.220	-.886	11.789
	12	7.061(*)	1.966	.025	.391	13.731
	1	.850	2.397	1.000	-7.282	8.981
	2	-2.526	2.327	1.000	-10.424	5.371
	3	-2.502	2.323	1.000	-10.383	5.379
	4	-1.161	2.170	1.000	-8.522	6.201
	5	-2.187	2.085	1.000	-9.263	4.889
10	6	-2.179	1.796	1.000	-8.272	3.914
	7	-3.911	1.645	.699	-9.492	1.671
	8	.425	1.213	1.000	-3.692	4.541
	10	1.150	1.403	1.000	-3.610	5.911
	11	5.876(*)	1.708	.042	.081	11.671
	12	7.486(*)	1.814	.003	1.331	13.640
	1	-.301	2.390	1.000	-8.411	7.809
	2	-3.677	2.315	1.000	-11.532	4.179
	3	-3.652	2.338	1.000	-11.585	4.280
	4	-2.311	2.199	1.000	-9.772	5.150
	5	-3.337	2.167	1.000	-10.689	4.014
	6	-3.329	1.974	.998	-10.028	3.370
11	7	-5.061	1.888	.401	-11.467	1.345
	8	-.726	1.628	1.000	-6.249	4.798
	9	-1.150	1.403	1.000	-5.911	3.610
	11	4.726(*)	1.174	.005	.744	8.707
	12	6.335(*)	1.405	.001	1.568	11.102
	1	-5.026	2.558	.967	-13.706	3.653
	2	-8.402(*)	2.448	.044	-16.707	-.098
	3	-8.378(*)	2.412	.038	-16.563	-.193
	4	-7.037	2.332	.166	-14.949	.876

12	5	-8.063(*)	2.315	.037	-15.918	-.208
	6	-8.055(*)	2.216	.021	-15.573	-.537
	7	-9.787(*)	2.178	.001	-17.178	-2.395
	8	-5.451	1.868	.220	-11.789	.886
	9	-5.876(*)	1.708	.042	-11.671	-.081
	10	-4.726(*)	1.174	.005	-8.707	-.744
	12	1.610	.975	.999	-1.700	4.919
	1	-6.636	2.567	.491	-15.346	2.073
	2	-10.012(*)	2.450	.004	-18.325	-1.700
	3	-9.988(*)	2.399	.003	-18.127	-1.848
	4	-8.646(*)	2.266	.011	-16.336	-.957
	5	-9.673(*)	2.278	.002	-17.400	-1.945
	6	-9.665(*)	2.192	.001	-17.102	-2.227
	7	-11.396(*)	2.180	.000	-18.795	-3.998
	8	-7.061(*)	1.966	.025	-13.731	-.391
	9	-7.486(*)	1.814	.003	-13.640	-1.331
	10	-6.335(*)	1.405	.001	-11.102	-1.568
	11	-1.610	.975	.999	-4.919	1.700

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Working Capital Level

### Estimates

Measure: MEASURE\_1

Working Capital Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	298.084	4.353	289.521	306.648
Medium	292.166	3.078	286.110	298.221
High	310.767	4.353	302.204	319.331

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Working Capital Level	(J) Working Capital Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	5.919	5.331	.607	-6.877	18.714
	High	-12.683	6.156	.116	-27.458	2.092
Medium	Low	-5.919	5.331	.607	-18.714	6.877
	High	-18.602(*)	5.331	.002	-31.397	-5.806
High	Low	12.683	6.156	.116	-2.092	27.458
	Medium	18.602(*)	5.331	.002	5.806	31.397

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	18920.672	2	9460.336	6.089	.003	.036	.885
Error	504962.739	325	1553.732				

The F tests the effect of Working Capital %TC Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Working Capital Level \* year

Measure: MEASURE\_1

Working Capital Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	296.134	4.191	287.889	304.379
	2	301.073	4.584	292.054	310.092

Medium	3	299.354	4.953	289.609	309.098
	4	298.732	5.154	288.592	308.871
	5	301.000	5.090	290.986	311.014
	6	305.854	4.901	296.212	315.495
	7	307.061	5.267	296.700	317.422
	8	297.976	5.391	287.370	308.581
	9	295.622	5.290	285.216	306.028
	10	294.902	5.216	284.640	305.165
	11	290.744	5.372	280.175	301.313
	12	288.561	5.358	278.021	299.101
	1	294.616	2.964	288.786	300.446
	2	296.049	3.242	289.671	302.426
	3	295.524	3.503	288.634	302.415
	4	294.146	3.644	286.977	301.316
	5	292.591	3.599	285.510	299.672
	6	293.177	3.465	286.359	299.994
	7	294.982	3.724	287.655	302.308
	8	291.780	3.812	284.281	299.280
	9	291.628	3.740	284.270	298.986
	10	291.055	3.689	283.798	298.311
	11	284.659	3.799	277.185	292.132
	12	285.780	3.788	278.327	293.234
High	1	308.049	4.191	299.804	316.294
	2	311.805	4.584	302.786	320.824
	3	313.976	4.953	304.231	323.720
	4	311.951	5.154	301.812	322.090
	5	314.317	5.090	304.303	324.331
	6	308.854	4.901	299.212	318.495
	7	311.037	5.267	300.675	321.398
	8	310.317	5.391	299.711	320.923
	9	314.098	5.290	303.691	324.504
	10	311.939	5.216	301.677	322.201

11	308.317	5.372	297.748	318.886
12	304.549	5.358	294.009	315.089

## APPENDIX J

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of ROA

#### *General Linear Model of Level of ROA for Community Relations*

##### Between-Subjects Factors

		Value Label	N
ROA Level	1	Low	82
	2	Medium	164
	3	High	82

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	17142.174	11	1558.379	15.946	.000	.047	1.000
	Greenhouse-Geisser	17142.174	3.952	4337.835	15.946	.000	.047	1.000
	Huynh-Feldt	17142.174	4.031	4252.458	15.946	.000	.047	1.000
	Lower-bound	17142.174	1.000	17142.174	15.946	.000	.047	.978
year * ROAlevel	Sphericity Assumed	1997.545	22	90.798	.929	.556	.006	.764
	Greenhouse-Geisser	1997.545	7.904	252.740	.929	.490	.006	.437
	Huynh-Feldt	1997.545	8.062	247.765	.929	.492	.006	.443
	Lower-bound	1997.545	2.000	998.773	.929	.396	.006	.210
Error(year)	Sphericity Assumed	349384.521	3575	97.730				
	Greenhouse-Geisser	349384.521	1284.329	272.037				
	Huynh-Feldt	349384.521	1310.114	266.682				
	Lower-bound	349384.521	325.000	1075.029				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15196.104	1	15196.104	34.656	.000	.096	1.000
	Quadratic	392.365	1	392.365	2.444	.119	.007	.344
	Cubic	660.338	1	660.338	6.842	.009	.021	.742
year * ROAlevel	Linear	878.951	2	439.475	1.002	.368	.006	.224
	Quadratic	1.447	2	.724	.005	.996	.000	.051
	Cubic	698.809	2	349.404	3.620	.028	.022	.667
Error(year)	Linear	142507.483	325	438.485				
	Quadratic	52172.707	325	160.531				
	Cubic	31367.217	325	96.515				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	3674.561	2	1837.281	.915	.402	.006	.208
Error	652804.412	325	2008.629				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year



### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.215	.948	49.350	53.081
2	52.055	1.015	50.059	54.051
3	53.187	1.126	50.971	55.403
4	50.783	.970	48.874	52.692
5	50.872	.973	48.958	52.786
6	49.829	.907	48.046	51.613
7	49.965	.913	48.169	51.762
8	48.419	.898	46.653	50.185
9	47.923	.896	46.160	49.685
10	46.880	.821	45.265	48.495
11	46.205	.821	44.590	47.820
12	46.372	.865	44.670	48.074

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-.839	.448	.985	-2.359	.680
	3	-1.972	.685	.246	-4.296	.353
	4	.433	.811	1.000	-2.318	3.184
	5	.343	.889	1.000	-2.672	3.359
	6	1.386	.917	1.000	-1.725	4.498
	7	1.250	.933	1.000	-1.917	4.417

2	8	2.797	.946	.199	-.414	6.008
	9	3.293(*)	.925	.028	.155	6.430
	10	4.335(*)	.948	.000	1.119	7.552
	11	5.010(*)	.965	.000	1.735	8.285
	12	4.843(*)	.989	.000	1.487	8.200
	1	.839	.448	.985	-.680	2.359
	3	-1.132	.520	.868	-2.897	.633
	4	1.272	.764	.999	-1.319	3.864
	5	1.183	.886	1.000	-1.823	4.189
	6	2.226	.945	.720	-.980	5.432
	7	2.089	.946	.845	-1.119	5.298
	8	3.636(*)	.979	.016	.313	6.959
3	9	4.132(*)	.968	.002	.847	7.417
	10	5.175(*)	.988	.000	1.821	8.528
	11	5.850(*)	1.016	.000	2.402	9.297
	12	5.683(*)	1.036	.000	2.168	9.198
	1	1.972	.685	.246	-.353	4.296
	2	1.132	.520	.868	-.633	2.897
	4	2.404(*)	.687	.034	.074	4.735
	5	2.315	.877	.439	-.661	5.291
	6	3.358(*)	.958	.034	.108	6.607
	7	3.222	.955	.054	-.020	6.463
	8	4.768(*)	1.003	.000	1.365	8.171
	9	5.264(*)	1.002	.000	1.864	8.665
4	10	6.307(*)	1.021	.000	2.843	9.771
	11	6.982(*)	1.053	.000	3.410	10.553
	12	6.815(*)	1.090	.000	3.118	10.512
	1	-.433	.811	1.000	-3.184	2.318
	2	-1.272	.764	.999	-3.864	1.319
	3	-2.404(*)	.687	.034	-4.735	-.074
	5	-.089	.634	1.000	-2.242	2.063
	6	.953	.784	1.000	-1.707	3.613
	7	.817	.820	1.000	-1.967	3.601

5	8	2.364	.882	.402	-.630	5.358
	9	2.860	.871	.072	-.095	5.814
	10	3.902(*)	.880	.001	.916	6.889
	11	4.577(*)	.917	.000	1.467	7.687
	12	4.411(*)	.985	.001	1.067	7.754
	1	-.343	.889	1.000	-3.359	2.672
	2	-1.183	.886	1.000	-4.189	1.823
	3	-2.315	.877	.439	-5.291	.661
	4	.089	.634	1.000	-2.063	2.242
	6	1.043	.629	.999	-1.092	3.177
	7	.907	.727	1.000	-1.560	3.373
	8	2.453	.837	.212	-.386	5.292
6	9	2.949	.874	.053	-.016	5.914
	10	3.992(*)	.874	.000	1.026	6.957
	11	4.667(*)	.885	.000	1.664	7.669
	12	4.500(*)	.924	.000	1.365	7.635
	1	-1.386	.917	1.000	-4.498	1.725
	2	-2.226	.945	.720	-5.432	.980
	3	-3.358(*)	.958	.034	-6.607	-.108
	4	-.953	.784	1.000	-3.613	1.707
	5	-1.043	.629	.999	-3.177	1.092
	7	-.136	.484	1.000	-1.778	1.506
	8	1.411	.672	.915	-.870	3.692
	9	1.907	.742	.506	-.611	4.424
7	10	2.949(*)	.796	.016	.249	5.649
	11	3.624(*)	.796	.001	.922	6.326
	12	3.457(*)	.782	.001	.805	6.109
	1	-1.250	.933	1.000	-4.417	1.917
	2	-2.089	.946	.845	-5.298	1.119
	3	-3.222	.955	.054	-6.463	.020
	4	-.817	.820	1.000	-3.601	1.967
	5	-.907	.727	1.000	-3.373	1.560
	6	.136	.484	1.000	-1.506	1.778

8	8	1.547	.533	.231	-.263	3.356
	9	2.043	.628	.080	-.089	4.174
	10	3.085(*)	.706	.001	.689	5.482
	11	3.760(*)	.727	.000	1.292	6.228
	12	3.593(*)	.710	.000	1.184	6.003
	1	-2.797	.946	.199	-6.008	.414
	2	-3.636(*)	.979	.016	-6.959	-.313
	3	-4.768(*)	1.003	.000	-8.171	-1.365
	4	-2.364	.882	.402	-5.358	.630
	5	-2.453	.837	.212	-5.292	.386
	6	-1.411	.672	.915	-3.692	.870
	7	-1.547	.533	.231	-3.356	.263
9	9	.496	.393	1.000	-.837	1.829
	10	1.539	.574	.402	-.410	3.487
	11	2.213(*)	.597	.016	.188	4.239
	12	2.047(*)	.598	.045	.018	4.076
	1	-3.293(*)	.925	.028	-6.430	-.155
	2	-4.132(*)	.968	.002	-7.417	-.847
	3	-5.264(*)	1.002	.000	-8.665	-1.864
	4	-2.860	.871	.072	-5.814	.095
	5	-2.949	.874	.053	-5.914	.016
	6	-1.907	.742	.506	-4.424	.611
	7	-2.043	.628	.080	-4.174	.089
	8	-.496	.393	1.000	-1.829	.837
10	10	1.043	.465	.820	-.535	2.621
	11	1.717	.547	.115	-.138	3.573
	12	1.551	.569	.363	-.381	3.483
	1	-4.335(*)	.948	.000	-7.552	-1.119
	2	-5.175(*)	.988	.000	-8.528	-1.821
	3	-6.307(*)	1.021	.000	-9.771	-2.843
	4	-3.902(*)	.880	.001	-6.889	-.916
	5	-3.992(*)	.874	.000	-6.957	-1.026
	6	-2.949(*)	.796	.016	-5.649	-.249

11	7	-3.085(*)	.706	.001	-5.482	-.689
	8	-1.539	.574	.402	-3.487	.410
	9	-1.043	.465	.820	-2.621	.535
	11	.675	.343	.967	-.490	1.840
	12	.508	.518	1.000	-1.250	2.266
	1	-5.010(*)	.965	.000	-8.285	-1.735
	2	-5.850(*)	1.016	.000	-9.297	-2.402
	3	-6.982(*)	1.053	.000	-10.553	-3.410
	4	-4.577(*)	.917	.000	-7.687	-1.467
	5	-4.667(*)	.885	.000	-7.669	-1.664
	6	-3.624(*)	.796	.001	-6.326	-.922
12	7	-3.760(*)	.727	.000	-6.228	-1.292
	8	-2.213(*)	.597	.016	-4.239	-.188
	9	-1.717	.547	.115	-3.573	.138
	10	-.675	.343	.967	-1.840	.490
	12	-.167	.369	1.000	-1.418	1.085
	1	-4.843(*)	.989	.000	-8.200	-1.487
	2	-5.683(*)	1.036	.000	-9.198	-2.168
	3	-6.815(*)	1.090	.000	-10.512	-3.118
	4	-4.411(*)	.985	.001	-7.754	-1.067
	5	-4.500(*)	.924	.000	-7.635	-1.365
	6	-3.457(*)	.782	.001	-6.109	-.805
	7	-3.593(*)	.710	.000	-6.003	-1.184
	8	-2.047(*)	.598	.045	-4.076	-.018
	9	-1.551	.569	.363	-3.483	.381
	10	-.508	.518	1.000	-2.266	1.250
	11	.167	.369	1.000	-1.085	1.418

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	49.872	1.429	47.061	52.683
Medium	48.207	1.010	46.219	50.194
High	50.348	1.429	47.537	53.158

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) ROA Level	(J) ROA Level				Upper Bound	Lower Bound
Low	Medium	1.665	1.750	.715	-2.535	5.865
	High	-.476	2.021	.994	-5.325	4.374
Medium	Low	-1.665	1.750	.715	-5.865	2.535
	High	-2.141	1.750	.529	-6.341	2.059
High	Low	.476	2.021	.994	-4.374	5.325
	Medium	2.141	1.750	.529	-2.059	6.341

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	306.213	2	153.107	.915	.402	.006	.208
Error	54400.368	325	167.386				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	52.780	1.799	49.241	56.320
	2	52.768	1.925	48.981	56.555
	3	54.305	2.137	50.100	58.509
	4	50.378	1.841	46.756	54.000
	5	50.378	1.846	46.746	54.010
	6	50.476	1.720	47.091	53.860
	7	50.720	1.733	47.311	54.128
	8	49.549	1.703	46.198	52.900
	9	48.793	1.700	45.449	52.137
	10	46.598	1.558	43.533	49.662
	11	45.963	1.557	42.899	49.027
Medium	12	45.756	1.641	42.527	48.985
	1	49.646	1.272	47.144	52.149
	2	51.518	1.361	48.840	54.196
	3	52.390	1.511	49.417	55.363
	4	50.628	1.302	48.067	53.189
	5	50.238	1.305	47.670	52.806
	6	48.988	1.216	46.595	51.381
	7	48.494	1.225	46.083	50.904
	8	46.463	1.204	44.094	48.833
	9	45.402	1.202	43.038	47.767

High	10	44.799	1.102	42.632	46.966
	11	44.604	1.101	42.437	46.770
	12	45.311	1.161	43.028	47.594
	1	51.220	1.799	47.680	54.759
	2	51.878	1.925	48.091	55.665
	3	52.866	2.137	48.661	57.070
	4	51.341	1.841	47.719	54.964
	5	52.000	1.846	48.368	55.632
	6	50.024	1.720	46.640	53.409
	7	50.683	1.733	47.274	54.092
	8	49.244	1.703	45.893	52.595
	9	49.573	1.700	46.229	52.917
	10	49.244	1.558	46.179	52.308
	11	48.049	1.557	44.985	51.113
	12	48.049	1.641	44.820	51.278

### ***General Linear Model of Level of ROA for Diversity***

#### **Between-Subjects Factors**

		Value Label	N
ROA Level	1	Low	82
	2	Medium	164
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1



Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	41709.413	11	3791.765	47.133	.000	.127	1.000
	Greenhouse-Geisser	41709.413	4.334	9623.508	47.133	.000	.127	1.000
	Huynh-Feldt	41709.413	4.427	9421.580	47.133	.000	.127	1.000
	Lower-bound	41709.413	1.000	41709.413	47.133	.000	.127	1.000
year * ROAlevel	Sphericity Assumed	1716.243	22	78.011	.970	.500	.006	.787
	Greenhouse-Geisser	1716.243	8.668	197.992	.970	.462	.006	.482
	Huynh-Feldt	1716.243	8.854	193.838	.970	.463	.006	.488
	Lower-bound	1716.243	2.000	858.122	.970	.380	.006	.218
Error(year)	Sphericity Assumed	287599.780	3575	80.447				
	Greenhouse-Geisser	287599.780	1408.588	204.176				
	Huynh-Feldt	287599.780	1438.778	199.892				
	Lower-bound	287599.780	325.000	884.922				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	40009.351	1	40009.351	118.065	.000	.266	1.000
	Quadratic	1081.952	1	1081.952	6.790	.010	.020	.738
	Cubic	127.911	1	127.911	1.892	.170	.006	.279
year * ROAlevel	Linear	248.321	2	124.161	.366	.694	.002	.109
	Quadratic	705.861	2	352.931	2.215	.111	.013	.451
	Cubic	116.367	2	58.184	.861	.424	.005	.198
Error(year)	Linear	110134.585	325	338.876				
	Quadratic	51788.656	325	159.350				
	Cubic	21966.371	325	67.589				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	5671.683	2	2835.842	1.308	.272	.008	.282
Error	704526.629	325	2167.774				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.632	.529	43.591	45.674
2	45.256	.607	44.062	46.450
3	45.963	.677	44.631	47.296
4	48.593	.859	46.903	50.284
5	49.724	.880	47.993	51.454
6	50.486	.963	48.591	52.381
7	51.280	.988	49.337	53.224
8	52.138	1.023	50.126	54.150
9	53.248	1.062	51.158	55.338
10	54.083	1.095	51.929	56.238
11	54.581	1.126	52.366	56.796
12	54.301	1.084	52.168	56.434

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.624	.255	.627	-1.488	.240
	3	-1.331	.408	.077	-2.714	.052
	4	-3.961(*)	.620	.000	-6.066	-1.856
	5	-5.091(*)	.648	.000	-7.292	-2.891
	6	-5.854(*)	.768	.000	-8.459	-3.249
	7	-6.648(*)	.799	.000	-9.360	-3.937
	8	-7.506(*)	.843	.000	-10.368	-4.644
	9	-8.616(*)	.886	.000	-11.623	-5.609
	10	-9.451(*)	.914	.000	-12.553	-6.349
	11	-9.949(*)	.939	.000	-13.136	-6.762
	12	-9.669(*)	.910	.000	-12.758	-6.580
2	1	.624	.255	.627	-.240	1.488
	3	-.707	.323	.858	-1.803	.388
	4	-3.337(*)	.574	.000	-5.286	-1.389
	5	-4.467(*)	.608	.000	-6.530	-2.405
	6	-5.230(*)	.719	.000	-7.671	-2.789
	7	-6.024(*)	.747	.000	-8.560	-3.489
	8	-6.882(*)	.788	.000	-9.557	-4.207
	9	-7.992(*)	.845	.000	-10.858	-5.126
	10	-8.827(*)	.866	.000	-11.767	-5.888
	11	-9.325(*)	.889	.000	-12.340	-6.310
	12	-9.045(*)	.862	.000	-11.968	-6.121
3	1	1.331	.408	.077	-.052	2.714
	2	.707	.323	.858	-.388	1.803
	4	-2.630(*)	.513	.000	-4.370	-.890
	5	-3.760(*)	.592	.000	-5.770	-1.750
	6	-4.522(*)	.704	.000	-6.910	-2.135

4	7	-5.317(*)	.743	.000	-7.839	-2.795
	8	-6.175(*)	.753	.000	-8.731	-3.618
	9	-7.285(*)	.820	.000	-10.065	-4.504
	10	-8.120(*)	.857	.000	-11.028	-5.212
	11	-8.618(*)	.854	.000	-11.517	-5.719
	12	-8.337(*)	.839	.000	-11.183	-5.492
	1	3.961(*)	.620	.000	1.856	6.066
	2	3.337(*)	.574	.000	1.389	5.286
	3	2.630(*)	.513	.000	.890	4.370
	5	-1.130	.481	.725	-2.762	.501
	6	-1.892	.643	.206	-4.074	.290
	7	-2.687(*)	.744	.023	-5.212	-.162
5	8	-3.545(*)	.741	.000	-6.059	-1.031
	9	-4.654(*)	.815	.000	-7.420	-1.889
	10	-5.490(*)	.881	.000	-8.478	-2.501
	11	-5.988(*)	.902	.000	-9.049	-2.927
	12	-5.707(*)	.883	.000	-8.704	-2.711
	1	5.091(*)	.648	.000	2.891	7.292
	2	4.467(*)	.608	.000	2.405	6.530
	3	3.760(*)	.592	.000	1.750	5.770
	4	1.130	.481	.725	-.501	2.762
	6	-.762	.511	1.000	-2.494	.970
	7	-1.557	.639	.642	-3.727	.613
	8	-2.415(*)	.668	.023	-4.682	-.147
6	9	-3.524(*)	.723	.000	-5.978	-1.070
	10	-4.360(*)	.833	.000	-7.185	-1.534
	11	-4.858(*)	.865	.000	-7.792	-1.924
	12	-4.577(*)	.842	.000	-7.433	-1.722
	1	5.854(*)	.768	.000	3.249	8.459
	2	5.230(*)	.719	.000	2.789	7.671
	3	4.522(*)	.704	.000	2.135	6.910
	4	1.892	.643	.206	-.290	4.074
	5	.762	.511	1.000	-.970	2.494

7	7	-.795	.486	.999	-2.443	.854
	8	-1.652	.636	.480	-3.812	.507
	9	-2.762(*)	.768	.024	-5.367	-.157
	10	-3.598(*)	.885	.004	-6.601	-.594
	11	-4.096(*)	.933	.001	-7.262	-.929
	12	-3.815(*)	.879	.001	-6.796	-.834
	1	6.648(*)	.799	.000	3.937	9.360
	2	6.024(*)	.747	.000	3.489	8.560
	3	5.317(*)	.743	.000	2.795	7.839
	4	2.687(*)	.744	.023	.162	5.212
	5	1.557	.639	.642	-.613	3.727
	6	.795	.486	.999	-.854	2.443
8	8	-.858	.513	.999	-2.598	.882
	9	-1.967	.695	.278	-4.325	.390
	10	-2.803(*)	.825	.049	-5.602	-.004
	11	-3.301(*)	.875	.013	-6.271	-.330
	12	-3.020(*)	.820	.018	-5.804	-.237
	1	7.506(*)	.843	.000	4.644	10.368
	2	6.882(*)	.788	.000	4.207	9.557
	3	6.175(*)	.753	.000	3.618	8.731
	4	3.545(*)	.741	.000	1.031	6.059
	5	2.415(*)	.668	.023	.147	4.682
	6	1.652	.636	.480	-.507	3.812
	7	.858	.513	.999	-.882	2.598
9	9	-1.110	.530	.917	-2.908	.688
	10	-1.945	.714	.363	-4.369	.478
	11	-2.443	.769	.102	-5.051	.165
	12	-2.163	.742	.223	-4.681	.356
	1	8.616(*)	.886	.000	5.609	11.623
	2	7.992(*)	.845	.000	5.126	10.858
	3	7.285(*)	.820	.000	4.504	10.065
	4	4.654(*)	.815	.000	1.889	7.420
	5	3.524(*)	.723	.000	1.070	5.978

10	6	2.762(*)	.768	.024	.157	5.367
	7	1.967	.695	.278	-.390	4.325
	8	1.110	.530	.917	-.688	2.908
	10	-.835	.590	1.000	-2.838	1.167
	11	-1.333	.699	.980	-3.706	1.039
	12	-1.053	.662	1.000	-3.301	1.195
	1	9.451(*)	.914	.000	6.349	12.553
	2	8.827(*)	.866	.000	5.888	11.767
	3	8.120(*)	.857	.000	5.212	11.028
	4	5.490(*)	.881	.000	2.501	8.478
	5	4.360(*)	.833	.000	1.534	7.185
	6	3.598(*)	.885	.004	.594	6.601
11	7	2.803(*)	.825	.049	.004	5.602
	8	1.945	.714	.363	-.478	4.369
	9	.835	.590	1.000	-1.167	2.838
	11	-.498	.495	1.000	-2.178	1.182
	12	-.217	.601	1.000	-2.257	1.822
	1	9.949(*)	.939	.000	6.762	13.136
	2	9.325(*)	.889	.000	6.310	12.340
	3	8.618(*)	.854	.000	5.719	11.517
	4	5.988(*)	.902	.000	2.927	9.049
	5	4.858(*)	.865	.000	1.924	7.792
	6	4.096(*)	.933	.001	.929	7.262
	7	3.301(*)	.875	.013	.330	6.271
12	8	2.443	.769	.102	-.165	5.051
	9	1.333	.699	.980	-1.039	3.706
	10	.498	.495	1.000	-1.182	2.178
	12	.280	.435	1.000	-1.197	1.758
	1	9.669(*)	.910	.000	6.580	12.758
	2	9.045(*)	.862	.000	6.121	11.968
	3	8.337(*)	.839	.000	5.492	11.183
	4	5.707(*)	.883	.000	2.711	8.704
	5	4.577(*)	.842	.000	1.722	7.433

6	3.815(*)	.879	.001	.834	6.796
7	3.020(*)	.820	.018	.237	5.804
8	2.163	.742	.223	-.356	4.681
9	1.053	.662	1.000	-1.195	3.301
10	.217	.601	1.000	-1.822	2.257
11	-.280	.435	1.000	-1.758	1.197

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.650	1.484	47.730	53.570
Medium	48.821	1.050	46.756	50.885
High	51.601	1.484	48.681	54.521

### Pairwise Comparisons

Measure: MEASURE\_1

(I) ROA Level	(J) ROA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	1.830	1.818	.678	-2.533	6.193
	High	-.950	2.099	.958	-5.988	4.088
Medium	Low	-1.830	1.818	.678	-6.193	2.533
	High	-2.780	1.818	.335	-7.143	1.583
High	Low	.950	2.099	.958	-4.088	5.988
	Medium	2.780	1.818	.335	-1.583	7.143

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	472.640	2	236.320	1.308	.272	.008	.282
Error	58710.552	325	180.648				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	44.610	1.004	42.634	46.586
	2	45.561	1.152	43.295	47.827
	3	46.402	1.285	43.874	48.931
	4	48.902	1.631	45.694	52.110
	5	50.927	1.669	47.644	54.210
	6	51.829	1.828	48.234	55.425
	7	52.012	1.874	48.325	55.699
	8	53.098	1.941	49.280	56.915
	9	53.646	2.016	49.681	57.612
	10	53.890	2.078	49.802	57.979
	11	53.951	2.136	49.748	58.154
	12	52.976	2.057	48.928	57.023
Medium	1	43.043	.710	41.645	44.440
	2	44.159	.815	42.556	45.761
	3	44.805	.909	43.017	46.593



High	4	46.988	1.153	44.719	49.256
	5	47.207	1.180	44.886	49.529
	6	48.104	1.292	45.561	50.646
	7	50.378	1.325	47.771	52.985
	8	51.354	1.372	48.654	54.053
	9	52.000	1.425	49.196	54.804
	10	52.457	1.469	49.566	55.348
	11	52.695	1.511	49.723	55.667
	12	52.659	1.455	49.797	55.520
	1	46.244	1.004	44.268	48.220
	2	46.049	1.152	43.783	48.315
	3	46.683	1.285	44.155	49.211
	4	49.890	1.631	46.682	53.098
	5	51.037	1.669	47.754	54.320
	6	51.524	1.828	47.929	55.120
	7	51.451	1.874	47.764	55.138
	8	51.963	1.941	48.146	55.781
	9	54.098	2.016	50.132	58.063
	10	55.902	2.078	51.814	59.991
	11	57.098	2.136	52.895	61.301
	12	57.268	2.057	53.221	61.315

### ***General Linear Model of Level of ROA for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
ROA Level	1	Low	82
	2	Medium	164
	3	High	82

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	13111.264	11	1191.933	11.092	.000	.033	1.000
	Greenhouse-Geisser	13111.264	3.820	3432.291	11.092	.000	.033	1.000
	Huynh-Feldt	13111.264	3.895	3366.298	11.092	.000	.033	1.000
	Lower-bound	13111.264	1.000	13111.264	11.092	.001	.033	.913
year * ROAlevel	Sphericity Assumed	3566.995	22	162.136	1.509	.060	.009	.959
	Greenhouse-Geisser	3566.995	7.640	466.887	1.509	.153	.009	.669
	Huynh-Feldt	3566.995	7.790	457.910	1.509	.152	.009	.676
	Lower-bound	3566.995	2.000	1783.497	1.509	.223	.009	.321
Error(year)	Sphericity Assumed	384153.387	3575	107.455				
	Greenhouse-Geisser	384153.387	1241.492	309.429				
	Huynh-Feldt	384153.387	1265.830	303.479				
	Lower-bound	384153.387	325.000	1182.010				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	7955.871	1	7955.871	15.648	.000	.046	.976
	Quadratic	4649.633	1	4649.633	25.081	.000	.072	.999
	Cubic	8.945	1	8.945	.077	.782	.000	.059

year * ROAlevel	Linear	2174.859	2	1087.429	2.139	.119	.013	.437
	Quadratic	693.727	2	346.864	1.871	.156	.011	.388
	Cubic	180.268	2	90.134	.775	.462	.005	.182
	Linear	165233.659	325	508.411				
	Quadratic	60248.849	325	185.381				
	Cubic	37809.412	325	116.337				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	6359.179	2	3179.590	1.506	.223	.009	.320
Error	685988.973	325	2110.735				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	45.480	.705	44.093	46.866
2	47.659	.808	46.069	49.248
3	48.764	.857	47.078	50.450
4	50.098	.902	48.322	51.873

5	50.976	.951	49.105	52.847
6	50.476	.921	48.663	52.288
7	51.474	.994	49.518	53.430
8	52.018	1.080	49.893	54.143
9	51.689	1.049	49.626	53.752
10	52.384	1.063	50.292	54.476
11	51.163	1.059	49.079	53.246
12	50.498	1.093	48.348	52.648

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.179(*)	.545	.005	-4.027	-.331
	3	-3.285(*)	.641	.000	-5.458	-1.111
	4	-4.618(*)	.838	.000	-7.460	-1.775
	5	-5.496(*)	.854	.000	-8.392	-2.599
	6	-4.996(*)	.842	.000	-7.854	-2.138
	7	-5.994(*)	.895	.000	-9.031	-2.956
	8	-6.539(*)	1.023	.000	-10.009	-3.068
	9	-6.209(*)	.995	.000	-9.584	-2.835
	10	-6.904(*)	1.068	.000	-10.527	-3.281
	11	-5.683(*)	1.079	.000	-9.344	-2.021
	12	-5.018(*)	1.112	.001	-8.791	-1.246
	2	2.179(*)	.545	.005	.331	4.027
2	3	-1.106	.493	.820	-2.779	.568
	4	-2.439	.752	.082	-4.990	.111
	5	-3.317(*)	.807	.003	-6.056	-.578
	6	-2.817(*)	.816	.041	-5.586	-.048
	1	1.106	.493	.820	2.779	-.568

3	7	-3.815(*)	.880	.001	-6.800	-.830
	8	-4.360(*)	1.004	.001	-7.768	-.952
	9	-4.030(*)	.988	.004	-7.382	-.679
	10	-4.726(*)	1.055	.001	-8.305	-1.146
	11	-3.504	1.078	.081	-7.162	.154
	12	-2.839	1.113	.525	-6.617	.938
	1	3.285(*)	.641	.000	1.111	5.458
	2	1.106	.493	.820	-.568	2.779
	4	-1.333	.616	.876	-3.423	.756
	5	-2.211	.770	.251	-4.825	.403
	6	-1.711	.827	.929	-4.516	1.093
	7	-2.709	.866	.119	-5.648	.230
4	8	-3.254	.967	.055	-6.534	.026
	9	-2.925	.936	.120	-6.101	.251
	10	-3.620(*)	.988	.019	-6.973	-.267
	11	-2.398	1.004	.687	-5.804	1.007
	12	-1.734	1.033	.999	-5.238	1.771
	1	4.618(*)	.838	.000	1.775	7.460
	2	2.439	.752	.082	-.111	4.990
	3	1.333	.616	.876	-.756	3.423
	5	-.878	.585	1.000	-2.862	1.106
	6	-.378	.805	1.000	-3.108	2.352
	7	-1.376	.851	.999	-4.265	1.513
	8	-1.921	.950	.949	-5.143	1.302
5	9	-1.591	.929	.998	-4.743	1.560
	10	-2.287	1.016	.813	-5.733	1.160
	11	-1.065	1.027	1.000	-4.549	2.419
	12	-.400	1.039	1.000	-3.927	3.126
	1	5.496(*)	.854	.000	2.599	8.392
	2	3.317(*)	.807	.003	.578	6.056
	3	2.211	.770	.251	-.403	4.825
	4	.878	.585	1.000	-1.106	2.862
	6	.500	.674	1.000	-1.785	2.785

6	7	-.498	.789	1.000	-3.175	2.179
	8	-1.043	.942	1.000	-4.239	2.154
	9	-.713	.914	1.000	-3.814	2.387
	10	-1.409	1.039	1.000	-4.935	2.118
	11	-.187	1.070	1.000	-3.817	3.444
	12	.478	1.098	1.000	-3.248	4.204
	1	4.996(*)	.842	.000	2.138	7.854
	2	2.817(*)	.816	.041	.048	5.586
	3	1.711	.827	.929	-1.093	4.516
	4	.378	.805	1.000	-2.352	3.108
	5	-.500	.674	1.000	-2.785	1.785
	7	-.998	.486	.935	-2.646	.650
7	8	-1.543	.692	.829	-3.889	.804
	9	-1.213	.727	.999	-3.679	1.253
	10	-1.909	.873	.862	-4.871	1.053
	11	-.687	.927	1.000	-3.834	2.460
	12	-.022	.952	1.000	-3.251	3.207
	1	5.994(*)	.895	.000	2.956	9.031
	2	3.815(*)	.880	.001	.830	6.800
	3	2.709	.866	.119	-.230	5.648
	4	1.376	.851	.999	-1.513	4.265
	5	.498	.789	1.000	-2.179	3.175
	6	.998	.486	.935	-.650	2.646
	8	-.545	.541	1.000	-2.382	1.292
8	9	-.215	.628	1.000	-2.345	1.914
	10	-.911	.805	1.000	-3.643	1.822
	11	.311	.875	1.000	-2.656	3.278
	12	.976	.909	1.000	-2.107	4.058
	1	6.539(*)	1.023	.000	3.068	10.009
	2	4.360(*)	1.004	.001	.952	7.768
	3	3.254	.967	.055	-.026	6.534
	4	1.921	.950	.949	-1.302	5.143
	5	1.043	.942	1.000	-2.154	4.239

9	6	1.543	.692	.829	-.804	3.889
	7	.545	.541	1.000	-1.292	2.382
	9	.329	.438	1.000	-1.159	1.817
	10	-.366	.670	1.000	-2.640	1.909
	11	.856	.747	1.000	-1.680	3.391
	12	1.520	.789	.976	-1.158	4.199
	1	6.209(*)	.995	.000	2.835	9.584
	2	4.030(*)	.988	.004	.679	7.382
	3	2.925	.936	.120	-.251	6.101
	4	1.591	.929	.998	-1.560	4.743
	5	.713	.914	1.000	-2.387	3.814
	6	1.213	.727	.999	-1.253	3.679
10	7	.215	.628	1.000	-1.914	2.345
	8	-.329	.438	1.000	-1.817	1.159
	10	-.695	.554	1.000	-2.575	1.184
	11	.526	.671	1.000	-1.751	2.804
	12	1.191	.721	.999	-1.254	3.636
	1	6.904(*)	1.068	.000	3.281	10.527
	2	4.726(*)	1.055	.001	1.146	8.305
	3	3.620(*)	.988	.019	.267	6.973
	4	2.287	1.016	.813	-1.160	5.733
	5	1.409	1.039	1.000	-2.118	4.935
	6	1.909	.873	.862	-1.053	4.871
	7	.911	.805	1.000	-1.822	3.643
11	8	.366	.670	1.000	-1.909	2.640
	9	.695	.554	1.000	-1.184	2.575
	11	1.222	.396	.137	-.123	2.566
	12	1.886(*)	.489	.009	.227	3.545
	1	5.683(*)	1.079	.000	2.021	9.344
	2	3.504	1.078	.081	-.154	7.162
	3	2.398	1.004	.687	-1.007	5.804
	4	1.065	1.027	1.000	-2.419	4.549
	5	.187	1.070	1.000	-3.444	3.817

12	6	.687	.927	1.000	-2.460	3.834
	7	-.311	.875	1.000	-3.278	2.656
	8	-.856	.747	1.000	-3.391	1.680
	9	-.526	.671	1.000	-2.804	1.751
	10	-1.222	.396	.137	-2.566	.123
	12	.665	.301	.845	-.356	1.686
	1	5.018(*)	1.112	.001	1.246	8.791
	2	2.839	1.113	.525	-.938	6.617
	3	1.734	1.033	.999	-1.771	5.238
	4	.400	1.039	1.000	-3.126	3.927
	5	-.478	1.098	1.000	-4.204	3.248
	6	.022	.952	1.000	-3.207	3.251
	7	-.976	.909	1.000	-4.058	2.107
	8	-1.520	.789	.976	-4.199	1.158
	9	-1.191	.721	.999	-3.636	1.254
	10	-1.886(*)	.489	.009	-3.545	-.227
	11	-.665	.301	.845	-1.686	.356

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.825	1.465	47.944	53.706
Medium	48.543	1.036	46.506	50.581
High	51.301	1.465	48.420	54.182



### Pairwise Comparisons

Measure: MEASURE\_1

(I) ROA Level	(J) ROA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	2.282	1.794	.496	-2.023	6.587
	High	-.476	2.071	.994	-5.447	4.496
Medium	Low	-2.282	1.794	.496	-6.587	2.023
	High	-2.758	1.794	.330	-7.063	1.548
High	Low	.476	2.071	.994	-4.496	5.447
	Medium	2.758	1.794	.330	-1.548	7.063

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	529.932	2	264.966	1.506	.223	.009	.320
Error	57165.748	325	175.895				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	44.146	1.337	41.516	46.777
	2	46.000	1.533	42.984	49.016

	Medium	3	48.439	1.626	45.240	51.638
		4	50.098	1.712	46.729	53.466
		5	50.098	1.805	46.547	53.648
		6	51.963	1.748	48.525	55.402
		7	53.537	1.886	49.825	57.248
		8	53.549	2.050	49.517	57.581
		9	53.829	1.990	49.915	57.744
		10	54.317	2.018	50.347	58.287
		11	52.354	2.009	48.401	56.307
		12	51.573	2.074	47.493	55.653
		1	45.610	.946	43.750	47.470
		2	47.756	1.084	45.623	49.889
	High	3	47.854	1.150	45.592	50.116
		4	48.439	1.211	46.057	50.821
		5	49.902	1.276	47.392	52.413
		6	48.000	1.236	45.569	50.431
		7	48.640	1.334	46.016	51.264
		8	49.774	1.449	46.923	52.626
		9	49.482	1.407	46.714	52.250
		10	49.713	1.427	46.906	52.520
		11	48.890	1.421	46.095	51.686
		12	48.457	1.466	45.572	51.342
		1	46.683	1.337	44.052	49.314
		2	49.220	1.533	46.203	52.236
		3	50.000	1.626	46.801	53.199
		4	51.756	1.712	48.388	55.125
		5	52.927	1.805	49.377	56.477
		6	51.463	1.748	48.025	54.902
		7	52.244	1.886	48.533	55.955
		8	52.732	2.050	48.700	56.764
		9	51.756	1.990	47.842	55.671
		10	53.122	2.018	49.152	57.092

11	52.244	2.009	48.291	56.197
12	51.463	2.074	47.383	55.543

### ***General Linear Model of Level of ROA for Environment***

#### **Between-Subjects Factors**

	Value Label	N
ROA Level 1	Low	82
2	Medium	164
3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2299.122	11	209.011	2.424	.005	.007	.962
	Greenhouse-Geisser	2299.122	4.976	462.023	2.424	.034	.007	.770
	Huynh-Feldt	2299.122	5.094	451.341	2.424	.033	.007	.778
	Lower-bound	2299.122	1.000	2299.122	2.424	.120	.007	.342
year * ROAlevel	Sphericity Assumed	932.334	22	42.379	.491	.977	.003	.416
	Greenhouse-Geisser	932.334	9.952	93.679	.491	.896	.003	.261
	Huynh-Feldt	932.334	10.188	91.513	.491	.899	.003	.264
	Lower-bound	932.334	2.000	466.167	.491	.612	.003	.130
Error(year)	Sphericity Assumed	308285.996	3575	86.234				
	Greenhouse-Geisser	308285.996	1617.268	190.622				

Huynh-Feldt	308285.996	1655.545	186.214				
Lower-bound	308285.996	325.000	948.572				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	430.808	1	430.808	1.418	.235	.004	.221
	Quadratic	.343	1	.343	.002	.964	.000	.050
	Cubic	524.829	1	524.829	4.226	.041	.013	.536
year * ROAlevel	Linear	86.411	2	43.205	.142	.867	.001	.072
	Quadratic	24.570	2	12.285	.071	.931	.000	.061
	Cubic	171.768	2	85.884	.692	.502	.004	.166
Error(year)	Linear	98709.226	325	303.721				
	Quadratic	55915.236	325	172.047				
	Cubic	40360.705	325	124.187				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	8540.090	2	4270.045	1.651	.193	.010	.347
Error	840519.217	325	2586.213				

a. Computed using alpha = .05

## Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.650	.842	48.994	52.307
2	49.413	.915	47.613	51.213
3	48.913	.989	46.967	50.859
4	48.807	1.009	46.823	50.791
5	49.624	.977	47.702	51.546
6	50.535	1.006	48.555	52.514
7	51.148	1.077	49.029	53.268
8	51.002	1.080	48.877	53.128
9	50.545	1.047	48.486	52.604
10	50.508	1.025	48.492	52.524
11	49.449	1.044	47.395	51.504
12	51.010	.949	49.143	52.877

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	1.238	.591	.918	-.769	3.245
	3	1.738	.706	.615	-.657	4.133
	4	1.843	.777	.704	-.793	4.480
	5	1.026	.802	1.000	-1.696	3.749
	6	.116	.810	1.000	-2.632	2.864
	7	-.498	.842	1.000	-3.355	2.359

2	8	-.352	.872	1.000	-3.309	2.605
	9	.106	.916	1.000	-3.002	3.214
	10	.142	.850	1.000	-2.743	3.028
	11	1.201	.931	1.000	-1.956	4.359
	12	-.360	.914	1.000	-3.463	2.743
	1	-1.238	.591	.918	-3.245	.769
	3	.500	.476	1.000	-1.116	2.116
	4	.606	.648	1.000	-1.594	2.805
	5	-.211	.713	1.000	-2.629	2.207
	6	-1.122	.811	1.000	-3.872	1.628
	7	-1.736	.841	.932	-4.590	1.119
	8	-1.589	.875	.992	-4.559	1.380
3	9	-1.132	.891	1.000	-4.154	1.890
	10	-1.096	.821	1.000	-3.882	1.690
	11	-.037	.868	1.000	-2.983	2.910
	12	-1.598	.886	.993	-4.604	1.408
	1	-1.738	.706	.615	-4.133	.657
	2	-.500	.476	1.000	-2.116	1.116
	4	.106	.607	1.000	-1.954	2.165
	5	-.711	.724	1.000	-3.166	1.743
	6	-1.622	.810	.955	-4.369	1.125
	7	-2.236	.852	.453	-5.127	.655
	8	-2.089	.859	.645	-5.005	.826
	9	-1.632	.884	.989	-4.630	1.366
4	10	-1.596	.840	.981	-4.447	1.256
	11	-.537	.926	1.000	-3.680	2.607
	12	-2.098	.940	.828	-5.286	1.091
	1	-1.843	.777	.704	-4.480	.793
	2	-.606	.648	1.000	-2.805	1.594
	3	-.106	.607	1.000	-2.165	1.954
	5	-.817	.548	1.000	-2.677	1.043
	6	-1.728	.777	.834	-4.364	.909
	7	-2.341	.859	.360	-5.255	.572

5	8	-2.195	.881	.584	-5.184	.793
	9	-1.738	.896	.973	-4.777	1.302
	10	-1.701	.877	.973	-4.677	1.275
	11	-.642	.953	1.000	-3.874	2.590
	12	-2.203	.962	.780	-5.469	1.062
	1	-1.026	.802	1.000	-3.749	1.696
	2	.211	.713	1.000	-2.207	2.629
	3	.711	.724	1.000	-1.743	3.166
	4	.817	.548	1.000	-1.043	2.677
	6	-.911	.639	1.000	-3.078	1.257
	7	-1.524	.723	.910	-3.978	.930
	8	-1.378	.773	.994	-4.002	1.246
6	9	-.921	.774	1.000	-3.546	1.704
	10	-.884	.777	1.000	-3.521	1.752
	11	.175	.824	1.000	-2.622	2.972
	12	-1.386	.850	.999	-4.272	1.499
	1	-.116	.810	1.000	-2.864	2.632
	2	1.122	.811	1.000	-1.628	3.872
	3	1.622	.810	.955	-1.125	4.369
	4	1.728	.777	.834	-.909	4.364
	5	.911	.639	1.000	-1.257	3.078
	7	-.614	.413	1.000	-2.014	.786
	8	-.467	.544	1.000	-2.313	1.378
	9	-.010	.612	1.000	-2.088	2.067
7	10	.026	.662	1.000	-2.221	2.274
	11	1.085	.816	1.000	-1.683	3.854
	12	-.476	.836	1.000	-3.311	2.360
	1	.498	.842	1.000	-2.359	3.355
	2	1.736	.841	.932	-1.119	4.590
	3	2.236	.852	.453	-.655	5.127
	4	2.341	.859	.360	-.572	5.255
	5	1.524	.723	.910	-.930	3.978
	6	.614	.413	1.000	-.786	2.014

8	8	.146	.414	1.000	-1.257	1.550
	9	.604	.530	1.000	-1.194	2.402
	10	.640	.598	1.000	-1.390	2.670
	11	1.699	.783	.872	-.956	4.354
	12	.138	.808	1.000	-2.605	2.881
	1	.352	.872	1.000	-2.605	3.309
	2	1.589	.875	.992	-1.380	4.559
	3	2.089	.859	.645	-.826	5.005
	4	2.195	.881	.584	-.793	5.184
	5	1.378	.773	.994	-1.246	4.002
	6	.467	.544	1.000	-1.378	2.313
	7	-.146	.414	1.000	-1.550	1.257
9	9	.457	.387	1.000	-.855	1.770
	10	.494	.487	1.000	-1.159	2.147
	11	1.553	.752	.931	-.999	4.105
	12	-.008	.807	1.000	-2.747	2.730
	1	-.106	.916	1.000	-3.214	3.002
	2	1.132	.891	1.000	-1.890	4.154
	3	1.632	.884	.989	-1.366	4.630
	4	1.738	.896	.973	-1.302	4.777
	5	.921	.774	1.000	-1.704	3.546
	6	.010	.612	1.000	-2.067	2.088
	7	-.604	.530	1.000	-2.402	1.194
	8	-.457	.387	1.000	-1.770	.855
10	10	.037	.461	1.000	-1.526	1.600
	11	1.096	.682	1.000	-1.219	3.410
	12	-.465	.740	1.000	-2.975	2.044
	1	-.142	.850	1.000	-3.028	2.743
	2	1.096	.821	1.000	-1.690	3.882
	3	1.596	.840	.981	-1.256	4.447
	4	1.701	.877	.973	-1.275	4.677
	5	.884	.777	1.000	-1.752	3.521
	6	-.026	.662	1.000	-2.274	2.221



11	7	-.640	.598	1.000	-2.670	1.390
	8	-.494	.487	1.000	-2.147	1.159
	9	-.037	.461	1.000	-1.600	1.526
	11	1.059	.552	.977	-.812	2.930
	12	-.502	.663	1.000	-2.750	1.746
	1	-1.201	.931	1.000	-4.359	1.956
	2	.037	.868	1.000	-2.910	2.983
	3	.537	.926	1.000	-2.607	3.680
	4	.642	.953	1.000	-2.590	3.874
	5	-.175	.824	1.000	-2.972	2.622
	6	-1.085	.816	1.000	-3.854	1.683
12	7	-1.699	.783	.872	-4.354	.956
	8	-1.553	.752	.931	-4.105	.999
	9	-1.096	.682	1.000	-3.410	1.219
	10	-1.059	.552	.977	-2.930	.812
	12	-1.561	.542	.243	-3.399	.277
	1	.360	.914	1.000	-2.743	3.463
	2	1.598	.886	.993	-1.408	4.604
	3	2.098	.940	.828	-1.091	5.286
	4	2.203	.962	.780	-1.062	5.469
	5	1.386	.850	.999	-1.499	4.272
	6	.476	.836	1.000	-2.360	3.311
	7	-.138	.808	1.000	-2.881	2.605
	8	.008	.807	1.000	-2.730	2.747
	9	.465	.740	1.000	-2.044	2.975
	10	.502	.663	1.000	-1.746	2.750
	11	1.561	.542	.243	-.277	3.399

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.193	1.621	45.004	51.382
Medium	49.883	1.146	47.627	52.138
High	52.325	1.621	49.136	55.515

### Pairwise Comparisons

Measure: MEASURE\_1

(I) ROA Level	(J) ROA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.690	1.986	.779	-6.455	3.076
	High	-4.132	2.293	.202	-9.635	1.371
Medium	Low	1.690	1.986	.779	-3.076	6.455
	High	-2.443	1.986	.525	-7.208	2.323
High	Low	4.132	2.293	.202	-1.371	9.635
	Medium	2.443	1.986	.525	-2.323	7.208

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	711.674	2	355.837	1.651	.193	.010	.347
Error	70043.268	325	215.518				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	48.476	1.598	45.332	51.619
	2	48.463	1.736	45.048	51.879
	3	47.329	1.877	43.637	51.021
	4	47.098	1.914	43.333	50.862
	5	47.402	1.853	43.756	51.049
	6	47.915	1.909	44.159	51.671
	7	49.049	2.044	45.028	53.070
	8	49.366	2.050	45.333	53.399
	9	48.659	1.986	44.751	52.566
	10	48.476	1.944	44.650	52.301
	11	47.524	1.982	43.626	51.423
	12	48.561	1.801	45.018	52.104
Medium	1	51.110	1.130	48.887	53.333
	2	48.750	1.228	46.335	51.165
	3	48.287	1.327	45.676	50.897
	4	48.018	1.353	45.356	50.680
	5	49.030	1.311	46.452	51.609
	6	51.445	1.350	48.789	54.101
	7	51.640	1.445	48.797	54.483
	8	50.470	1.450	47.618	53.321
	9	50.012	1.404	47.249	52.775
	10	50.585	1.375	47.880	53.290
	11	48.982	1.401	46.225	51.738
	12	50.262	1.273	47.757	52.767
High	1	52.366	1.598	49.222	55.509
	2	51.024	1.736	47.609	54.440
	3	51.122	1.877	47.430	54.814
	4	51.305	1.914	47.540	55.070

5	52.439	1.853	48.793	56.085
6	52.244	1.909	48.488	56.000
7	52.756	2.044	48.735	56.777
8	53.171	2.050	49.138	57.204
9	52.963	1.986	49.056	56.870
10	52.463	1.944	48.638	56.289
11	51.841	1.982	47.943	55.740
12	54.207	1.801	50.664	57.750

### ***General Linear Model of Level of ROA for Product***

#### **Between-Subjects Factors**

	Value Label	N
ROA Level 1	Low	82
2	Medium	164
3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	16140.391	11	1467.308	16.920	.000	.049	1.000
	Greenhouse-Geisser	16140.391	3.539	4560.082	16.920	.000	.049	1.000
	Huynh-Feldt	16140.391	3.605	4476.878	16.920	.000	.049	1.000
	Lower-bound	16140.391	1.000	16140.391	16.920	.000	.049	.984
year * ROAlevel	Sphericity Assumed	1442.911	22	65.587	.756	.783	.005	.646
	Greenhouse-Geisser	1442.911	7.079	203.830	.756	.626	.005	.333
	Huynh-Feldt	1442.911	7.211	200.111	.756	.628	.005	.337
	Lower-bound	1442.911	2.000	721.455	.756	.470	.005	.178

Error(year)	Sphericity Assumed	310028.739	3575	86.721				
	Greenhouse-Geisser	310028.739	1150.336	269.511				
	Huynh-Feldt	310028.739	1171.716	264.594				
	Lower-bound	310028.739	325.000	953.935				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15280.098	1	15280.098	34.950	.000	.097	1.000
	Quadratic	412.835	1	412.835	2.590	.109	.008	.361
	Cubic	4.429	1	4.429	.046	.831	.000	.055
year * ROAlevel	Linear	728.418	2	364.209	.833	.436	.005	.192
	Quadratic	121.536	2	60.768	.381	.683	.002	.111
	Cubic	22.846	2	11.423	.118	.889	.001	.068
Error(year)	Linear	142089.407	325	437.198				
	Quadratic	51804.706	325	159.399				
	Cubic	31517.209	325	96.976				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	2653.306	2	1326.653	.557	.573	.003	.142
Error	773676.810	325	2380.544				

a. Computed using alpha = .05

## Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.376	.859	50.685	54.067
2	52.291	.906	50.509	54.072
3	52.602	.880	50.871	54.332
4	51.642	.934	49.806	53.479
5	50.919	.903	49.142	52.696
6	50.098	.923	48.281	51.914
7	49.618	.975	47.700	51.536
8	49.309	1.001	47.339	51.279
9	48.630	1.011	46.640	50.620
10	48.543	1.039	46.499	50.587
11	46.738	1.080	44.613	48.862
12	45.711	1.096	43.555	47.868

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.085	.555	1.000	-1.797	1.968
	3	-.226	.628	1.000	-2.357	1.906
	4	.734	.763	1.000	-1.854	3.322
	5	1.457	.825	.995	-1.343	4.258
	6	2.278	.871	.460	-.675	5.232

2	7	2.758	.937	.206	-.422	5.938
	8	3.067	.917	.059	-.046	6.180
	9	3.746(*)	.941	.006	.553	6.939
	10	3.833(*)	.934	.003	.664	7.003
	11	5.638(*)	1.030	.000	2.144	9.133
	12	6.665(*)	1.055	.000	3.084	10.245
	1	-.085	.555	1.000	-1.968	1.797
	3	-.311	.423	1.000	-1.747	1.125
	4	.648	.666	1.000	-1.611	2.908
	5	1.372	.771	.995	-1.243	3.987
	6	2.193	.822	.412	-.596	4.982
	7	2.673	.889	.172	-.344	5.690
3	8	2.982	.888	.056	-.030	5.993
	9	3.661(*)	.915	.005	.556	6.765
	10	3.748(*)	.926	.004	.606	6.890
	11	5.553(*)	1.022	.000	2.085	9.021
	12	6.579(*)	1.061	.000	2.980	10.179
	1	.226	.628	1.000	-1.906	2.357
	2	.311	.423	1.000	-1.125	1.747
	4	.959	.556	.997	-.927	2.846
	5	1.683	.681	.606	-.629	3.995
	6	2.504	.790	.105	-.177	5.185
	7	2.984(*)	.874	.046	.019	5.949
	8	3.293(*)	.865	.011	.358	6.228
4	9	3.972(*)	.903	.001	.906	7.037
	10	4.059(*)	.935	.001	.888	7.230
	11	5.864(*)	1.009	.000	2.439	9.289
	12	6.890(*)	1.038	.000	3.368	10.412
	1	-.734	.763	1.000	-3.322	1.854
	2	-.648	.666	1.000	-2.908	1.611
	3	-.959	.556	.997	-2.846	.927
	5	.724	.509	1.000	-1.005	2.452
	6	1.545	.682	.802	-.771	3.860

5	7	2.024	.770	.449	-.589	4.638
	8	2.333	.807	.237	-.405	5.071
	9	3.012(*)	.858	.033	.102	5.922
	10	3.100(*)	.885	.034	.096	6.104
	11	4.904(*)	.965	.000	1.630	8.179
	12	5.931(*)	.990	.000	2.572	9.289
	1	-1.457	.825	.995	-4.258	1.343
	2	-1.372	.771	.995	-3.987	1.243
	3	-1.683	.681	.606	-3.995	.629
	4	-.724	.509	1.000	-2.452	1.005
	6	.821	.502	.999	-.884	2.526
	7	1.301	.632	.934	-.842	3.444
6	8	1.610	.685	.726	-.715	3.935
	9	2.289	.756	.161	-.275	4.852
	10	2.376	.789	.170	-.302	5.054
	11	4.181(*)	.858	.000	1.268	7.093
	12	5.207(*)	.891	.000	2.183	8.231
	1	-2.278	.871	.460	-5.232	.675
	2	-2.193	.822	.412	-4.982	.596
	3	-2.504	.790	.105	-5.185	.177
	4	-1.545	.682	.802	-3.860	.771
	5	-.821	.502	.999	-2.526	.884
	7	.480	.407	1.000	-.902	1.861
	8	.789	.522	1.000	-.981	2.558
7	9	1.467	.610	.673	-.604	3.539
	10	1.555	.651	.688	-.654	3.764
	11	3.360(*)	.764	.001	.768	5.951
	12	4.386(*)	.792	.000	1.700	7.073
	1	-2.758	.937	.206	-5.938	.422
	2	-2.673	.889	.172	-5.690	.344
	3	-2.984(*)	.874	.046	-5.949	-.019
	4	-2.024	.770	.449	-4.638	.589
	5	-1.301	.632	.934	-3.444	.842



8	6	-.480	.407	1.000	-1.861	.902
	8	.309	.349	1.000	-.877	1.495
	9	.988	.512	.975	-.749	2.725
	10	1.075	.614	.996	-1.009	3.160
	11	2.880(*)	.727	.006	.414	5.346
	12	3.907(*)	.766	.000	1.307	6.506
	1	-3.067	.917	.059	-6.180	.046
	2	-2.982	.888	.056	-5.993	.030
	3	-3.293(*)	.865	.011	-6.228	-.358
	4	-2.333	.807	.237	-5.071	.405
	5	-1.610	.685	.726	-3.935	.715
	6	-.789	.522	1.000	-2.558	.981
9	7	-.309	.349	1.000	-1.495	.877
	9	.679	.385	.996	-.628	1.986
	10	.766	.529	1.000	-1.030	2.563
	11	2.571(*)	.661	.008	.327	4.815
	12	3.598(*)	.714	.000	1.175	6.020
	1	-3.746(*)	.941	.006	-6.939	-.553
	2	-3.661(*)	.915	.005	-6.765	-.556
	3	-3.972(*)	.903	.001	-7.037	-.906
	4	-3.012(*)	.858	.033	-5.922	-.102
	5	-2.289	.756	.161	-4.852	.275
	6	-1.467	.610	.673	-3.539	.604
	7	-.988	.512	.975	-2.725	.749
10	8	-.679	.385	.996	-1.986	.628
	10	.087	.382	1.000	-1.210	1.385
	11	1.892(*)	.540	.034	.059	3.725
	12	2.919(*)	.624	.000	.801	5.036
	1	-3.833(*)	.934	.003	-7.003	-.664
	2	-3.748(*)	.926	.004	-6.890	-.606
	3	-4.059(*)	.935	.001	-7.230	-.888
	4	-3.100(*)	.885	.034	-6.104	-.096
	5	-2.376	.789	.170	-5.054	.302

11	6	-1.555	.651	.688	-3.764	.654
	7	-1.075	.614	.996	-3.160	1.009
	8	-.766	.529	1.000	-2.563	1.030
	9	-.087	.382	1.000	-1.385	1.210
	11	1.805(*)	.428	.002	.354	3.256
	12	2.831(*)	.538	.000	1.004	4.658
	1	-5.638(*)	1.030	.000	-9.133	-2.144
	2	-5.553(*)	1.022	.000	-9.021	-2.085
	3	-5.864(*)	1.009	.000	-9.289	-2.439
	4	-4.904(*)	.965	.000	-8.179	-1.630
	5	-4.181(*)	.858	.000	-7.093	-1.268
12	6	-3.360(*)	.764	.001	-5.951	-.768
	7	-2.880(*)	.727	.006	-5.346	-.414
	8	-2.571(*)	.661	.008	-4.815	-.327
	9	-1.892(*)	.540	.034	-3.725	-.059
	10	-1.805(*)	.428	.002	-3.256	-.354
	12	1.026	.354	.233	-.175	2.228
	1	-6.665(*)	1.055	.000	-10.245	-3.084
	2	-6.579(*)	1.061	.000	-10.179	-2.980
	3	-6.890(*)	1.038	.000	-10.412	-3.368
	4	-5.931(*)	.990	.000	-9.289	-2.572
	5	-5.207(*)	.891	.000	-8.231	-2.183
	6	-4.386(*)	.792	.000	-7.073	-1.700
	7	-3.907(*)	.766	.000	-6.506	-1.307
	8	-3.598(*)	.714	.000	-6.020	-1.175
	9	-2.919(*)	.624	.000	-5.036	-.801
	10	-2.831(*)	.538	.000	-4.658	-1.004
	11	-1.026	.354	.233	-2.228	.175

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.729	1.555	45.669	51.789
Medium	50.738	1.100	48.574	52.901
High	50.152	1.555	47.093	53.212

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) ROA Level	(J) ROA Level				Upper Bound	Lower Bound
Low	Medium	-2.009	1.905	.646	-6.581	2.563
	High	-1.424	2.200	.888	-6.703	3.856
Medium	Low	2.009	1.905	.646	-2.563	6.581
	High	.585	1.905	.986	-3.987	5.157
High	Low	1.424	2.200	.888	-3.856	6.703
	Medium	-.585	1.905	.986	-5.157	3.987

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	221.109	2	110.554	.557	.573	.003	.142
Error	64473.067	325	198.379				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	51.598	1.630	48.390	54.805
	2	50.793	1.718	47.412	54.173
	3	51.610	1.669	48.326	54.893
	4	51.720	1.771	48.235	55.204
	5	49.866	1.714	46.494	53.238
	6	49.512	1.752	46.066	52.959
	7	48.585	1.850	44.947	52.224
	8	48.354	1.900	44.616	52.091
	9	47.073	1.919	43.298	50.849
	10	47.305	1.971	43.426	51.183
	11	44.512	2.049	40.481	48.543
	12	43.817	2.080	39.726	47.908
Medium	1	52.287	1.153	50.018	54.555
	2	53.518	1.215	51.128	55.909
	3	52.585	1.180	50.263	54.907
	4	51.122	1.253	48.658	53.586
	5	51.537	1.212	49.152	53.921
	6	51.073	1.239	48.636	53.510
	7	50.317	1.308	47.744	52.890
	8	50.085	1.343	47.443	52.728
	9	50.378	1.357	47.708	53.048
	10	49.787	1.394	47.044	52.529
	11	48.689	1.449	45.839	51.539
	12	47.476	1.471	44.583	50.369
High	1	53.244	1.630	50.036	56.452
	2	52.561	1.718	49.180	55.942

3	53.610	1.669	50.326	56.893
4	52.085	1.771	48.601	55.570
5	51.354	1.714	47.982	54.726
6	49.707	1.752	46.261	53.154
7	49.951	1.850	46.313	53.590
8	49.488	1.900	45.751	53.225
9	48.439	1.919	44.663	52.215
10	48.537	1.971	44.658	52.415
11	47.012	2.049	42.981	51.043
12	45.841	2.080	41.750	49.933

### ***General Linear Model of Level of ROA for Corporate Governance***

#### **Between-Subjects Factors**

		Value Label	N
ROA Level	1	Low	82
	2	Medium	164
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	40565.547	11	3687.777	27.873	.000	.079	1.000
	Greenhouse-Geisser	40565.547	5.540	7322.566	27.873	.000	.079	1.000

year * ROAlevel	Huynh-Feldt	40565.547	5.682	7139.774	27.873	.000	.079	1.000
	Lower-bound	40565.547	1.000	40565.547	27.873	.000	.079	1.000
	Sphericity Assumed	1845.346	22	83.879	.634	.903	.004	.545
	Greenhouse-Geisser	1845.346	11.080	166.553	.634	.802	.004	.361
	Huynh-Feldt	1845.346	11.363	162.396	.634	.806	.004	.367
	Lower-bound	1845.346	2.000	922.673	.634	.531	.004	.156
Error(year)	Sphericity Assumed	472995.191	3575	132.306				
	Greenhouse-Geisser	472995.191	1800.435	262.712				
	Huynh-Feldt	472995.191	1846.529	256.154				
	Lower-bound	472995.191	325.000	1455.370				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	37112.766	1	37112.766	78.209	.000	.194	1.000
	Quadratic	794.536	1	794.536	3.503	.062	.011	.463
	Cubic	717.350	1	717.350	4.875	.028	.015	.595
year * ROAlevel	Linear	237.580	2	118.790	.250	.779	.002	.089
	Quadratic	309.995	2	154.998	.683	.506	.004	.165
	Cubic	481.735	2	240.868	1.637	.196	.010	.345
Error(year)	Linear	154223.823	325	474.535				
	Quadratic	73720.961	325	226.834				
	Cubic	47823.825	325	147.150				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	6733.465	2	3366.732	2.017	.135	.012	.415
Error	542487.681	325	1669.193				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.339	.369	55.614	57.065
2	55.441	.680	54.103	56.779
3	53.486	.782	51.946	55.025
4	51.293	.913	49.496	53.089
5	49.100	.952	47.227	50.972
6	50.553	.982	48.621	52.484
7	50.447	1.049	48.383	52.511
8	47.937	1.098	45.776	50.098
9	48.518	1.068	46.417	50.620
10	47.250	1.046	45.192	49.308
11	45.902	1.019	43.899	47.906
12	45.321	1.044	43.267	47.375

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.898	.625	1.000	-1.222	3.019
	3	2.854(*)	.772	.017	.233	5.475
	4	5.047(*)	.936	.000	1.871	8.223
	5	7.240(*)	.983	.000	3.906	10.574
	6	5.787(*)	1.020	.000	2.326	9.248
	7	5.892(*)	1.100	.000	2.161	9.624
	8	8.402(*)	1.142	.000	4.526	12.278
	9	7.821(*)	1.110	.000	4.054	11.588
	10	9.089(*)	1.110	.000	5.322	12.857
	11	10.437(*)	1.086	.000	6.751	14.123
	12	11.018(*)	1.106	.000	7.267	14.770
2	1	-.898	.625	1.000	-3.019	1.222
	3	1.955	.610	.094	-.115	4.026
	4	4.148(*)	.830	.000	1.332	6.964
	5	6.341(*)	.902	.000	3.282	9.401
	6	4.888(*)	.923	.000	1.756	8.021
	7	4.994(*)	1.024	.000	1.519	8.469
	8	7.504(*)	1.071	.000	3.871	11.137
	9	6.923(*)	1.084	.000	3.244	10.602
	10	8.191(*)	1.123	.000	4.379	12.003
	11	9.539(*)	1.093	.000	5.829	13.248
	12	10.120(*)	1.120	.000	6.321	13.919
3	1	-2.854(*)	.772	.017	-5.475	-.233
	2	-1.955	.610	.094	-4.026	.115
	4	2.193	.765	.254	-.404	4.790
	5	4.386(*)	.834	.000	1.556	7.217
	6	2.933	.913	.091	-.164	6.030
	7	3.039	1.040	.218	-.490	6.567
	8	5.549(*)	1.061	.000	1.948	9.150



4	9	4.967(*)	1.090	.000	1.268	8.666
	10	6.236(*)	1.137	.000	2.379	10.092
	11	7.583(*)	1.092	.000	3.878	11.289
	12	8.165(*)	1.125	.000	4.346	11.983
	1	-5.047(*)	.936	.000	-8.223	-1.871
	2	-4.148(*)	.830	.000	-6.964	-1.332
	3	-2.193	.765	.254	-4.790	.404
	5	2.193	.654	.058	-.027	4.413
	6	.740	.866	1.000	-2.199	3.678
	7	.846	.951	1.000	-2.380	4.071
	8	3.356	1.014	.066	-.084	6.795
	9	2.774	1.054	.446	-.802	6.351
5	10	4.043(*)	1.063	.011	.437	7.648
	11	5.390(*)	1.007	.000	1.974	8.806
	12	5.972(*)	1.029	.000	2.479	9.464
	1	-7.240(*)	.983	.000	-10.574	-3.906
	2	-6.341(*)	.902	.000	-9.401	-3.282
	3	-4.386(*)	.834	.000	-7.217	-1.556
	4	-2.193	.654	.058	-4.413	.027
	6	-1.453	.766	.981	-4.051	1.145
	7	-1.348	.852	1.000	-4.237	1.542
	8	1.163	.911	1.000	-1.929	4.254
	9	.581	.948	1.000	-2.635	3.797
	10	1.850	.978	.982	-1.467	5.166
6	11	3.197(*)	.926	.041	.055	6.340
	12	3.778(*)	.955	.006	.537	7.020
	1	-5.787(*)	1.020	.000	-9.248	-2.326
	2	-4.888(*)	.923	.000	-8.021	-1.756
	3	-2.933	.913	.091	-6.030	.164
	4	-.740	.866	1.000	-3.678	2.199
	5	1.453	.766	.981	-1.145	4.051
	7	.106	.729	1.000	-2.367	2.578
	8	2.616	.900	.227	-.436	5.668

7	9	2.035	.997	.941	-1.347	5.416
	10	3.303	1.001	.069	-.093	6.699
	11	4.650(*)	.987	.000	1.300	8.001
	12	5.232(*)	1.012	.000	1.799	8.665
	1	-5.892(*)	1.100	.000	-9.624	-2.161
	2	-4.994(*)	1.024	.000	-8.469	-1.519
	3	-3.039	1.040	.218	-6.567	.490
	4	-.846	.951	1.000	-4.071	2.380
	5	1.348	.852	1.000	-1.542	4.237
	6	-.106	.729	1.000	-2.578	2.367
	8	2.510	.781	.091	-.141	5.161
	9	1.929	.930	.927	-1.227	5.085
8	10	3.197	.984	.081	-.143	6.537
	11	4.545(*)	.925	.000	1.408	7.682
	12	5.126(*)	.953	.000	1.894	8.358
	1	-8.402(*)	1.142	.000	-12.278	-4.526
	2	-7.504(*)	1.071	.000	-11.137	-3.871
	3	-5.549(*)	1.061	.000	-9.150	-1.948
	4	-3.356	1.014	.066	-6.795	.084
	5	-1.163	.911	1.000	-4.254	1.929
	6	-2.616	.900	.227	-5.668	.436
	7	-2.510	.781	.091	-5.161	.141
	9	-.581	.722	1.000	-3.031	1.868
	10	.687	.893	1.000	-2.344	3.718
9	11	2.035	.903	.810	-1.028	5.097
	12	2.616	.945	.326	-.590	5.822
	1	-7.821(*)	1.110	.000	-11.588	-4.054
	2	-6.923(*)	1.084	.000	-10.602	-3.244
	3	-4.967(*)	1.090	.000	-8.666	-1.268
	4	-2.774	1.054	.446	-6.351	.802
	5	-.581	.948	1.000	-3.797	2.635
	6	-2.035	.997	.941	-5.416	1.347
	7	-1.929	.930	.927	-5.085	1.227

10	8	.581	.722	1.000	-1.868	3.031
	10	1.268	.772	.999	-1.350	3.886
	11	2.616	.847	.135	-.258	5.490
	12	3.197(*)	.889	.024	.180	6.215
	1	-9.089(*)	1.110	.000	-12.857	-5.322
	2	-8.191(*)	1.123	.000	-12.003	-4.379
	3	-6.236(*)	1.137	.000	-10.092	-2.379
	4	-4.043(*)	1.063	.011	-7.648	-.437
	5	-1.850	.978	.982	-5.166	1.467
	6	-3.303	1.001	.069	-6.699	.093
	7	-3.197	.984	.081	-6.537	.143
	8	-.687	.893	1.000	-3.718	2.344
11	9	-1.268	.772	.999	-3.886	1.350
	11	1.348	.611	.847	-.724	3.419
	12	1.929	.682	.280	-.385	4.243
	1	-10.437(*)	1.086	.000	-14.123	-6.751
	2	-9.539(*)	1.093	.000	-13.248	-5.829
	3	-7.583(*)	1.092	.000	-11.289	-3.878
	4	-5.390(*)	1.007	.000	-8.806	-1.974
	5	-3.197(*)	.926	.041	-6.340	-.055
	6	-4.650(*)	.987	.000	-8.001	-1.300
	7	-4.545(*)	.925	.000	-7.682	-1.408
	8	-2.035	.903	.810	-5.097	1.028
	9	-2.616	.847	.135	-5.490	.258
12	10	-1.348	.611	.847	-3.419	.724
	12	.581	.373	1.000	-.686	1.848
	1	-11.018(*)	1.106	.000	-14.770	-7.267
	2	-10.120(*)	1.120	.000	-13.919	-6.321
	3	-8.165(*)	1.125	.000	-11.983	-4.346
	4	-5.972(*)	1.029	.000	-9.464	-2.479
	5	-3.778(*)	.955	.006	-7.020	-.537
	6	-5.232(*)	1.012	.000	-8.665	-1.799
	7	-5.126(*)	.953	.000	-8.358	-1.894

8	-2.616	.945	.326	-5.822	.590
9	-3.197(*)	.889	.024	-6.215	-.180
10	-1.929	.682	.280	-4.243	.385
11	-.581	.373	1.000	-1.848	.686

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.347	1.302	45.784	50.909
Medium	51.550	.921	49.739	53.362
High	50.500	1.302	47.938	53.062

### Pairwise Comparisons

Measure: MEASURE\_1

(I) ROA Level	(J) ROA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-3.204	1.595	.130	-7.032	.625
	High	-2.153	1.842	.567	-6.574	2.267
Medium	Low	3.204	1.595	.130	-.625	7.032
	High	1.050	1.595	.883	-2.778	4.879
High	Low	2.153	1.842	.567	-2.267	6.574
	Medium	-1.050	1.595	.883	-4.879	2.778

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	561.122	2	280.561	2.017	.135	.012	.415
Error	45207.307	325	139.099				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	55.415	.700	54.038	56.791
	2	53.512	1.290	50.973	56.051
	3	52.085	1.485	49.165	55.006
	4	49.549	1.733	46.140	52.958
	5	47.012	1.806	43.460	50.564
	6	47.488	1.863	43.823	51.152
	7	47.963	1.991	44.047	51.880
	8	45.902	2.084	41.803	50.002
	9	46.854	2.027	42.866	50.841
	10	45.744	1.984	41.840	49.648
	11	44.634	1.933	40.832	48.436
	12	44.000	1.981	40.102	47.898
Medium	1	56.287	.495	55.313	57.260
	2	56.445	.912	54.650	58.240
	3	54.543	1.050	52.478	56.608
	4	53.354	1.225	50.943	55.764
	5	51.372	1.277	48.860	53.884

High	6	53.037	1.317	50.445	55.628
	7	51.293	1.408	48.523	54.062
	8	48.360	1.474	45.461	51.259
	9	49.945	1.433	47.126	52.765
	10	48.835	1.403	46.075	51.596
	11	47.963	1.367	45.275	50.652
	12	47.171	1.401	44.415	49.927
	1	57.317	.700	55.940	58.694
	2	56.366	1.290	53.827	58.905
	3	53.829	1.485	50.909	56.750
	4	50.976	1.733	47.566	54.385
	5	48.915	1.806	45.362	52.467
	6	51.134	1.863	47.470	54.799
	7	52.085	1.991	48.169	56.002
	8	49.549	2.084	45.449	53.649
	9	48.756	2.027	44.769	52.743
	10	47.171	1.984	43.267	51.075
	11	45.110	1.933	41.308	48.912
	12	44.793	1.981	40.895	48.690

### ***General Linear Model of Level of ROA for Total CSR***

#### **Between-Subjects Factors**

		Value Label	N
ROA Level	1	Low	82
	2	Medium	164
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	34631.162	11	3148.287	5.189	.000	.016	1.000
	Greenhouse-Geisser	34631.162	4.654	7441.726	5.189	.000	.016	.983
	Huynh-Feldt	34631.162	4.759	7277.614	5.189	.000	.016	.985
	Lower-bound	34631.162	1.000	34631.162	5.189	.023	.016	.622
year * ROAlevel	Sphericity Assumed	6034.726	22	274.306	.452	.987	.003	.379
	Greenhouse-Geisser	6034.726	9.307	648.387	.452	.911	.003	.232
	Huynh-Feldt	6034.726	9.517	634.088	.452	.914	.003	.235
	Lower-bound	6034.726	2.000	3017.363	.452	.637	.003	.123
Error(year)	Sphericity Assumed	2169028.453	3575	606.721				
	Greenhouse-Geisser	2169028.453	1512.435	1434.130				
	Huynh-Feldt	2169028.453	1546.541	1402.503				
	Lower-bound	2169028.453	325.000	6673.934				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	16000.249	1	16000.249	6.595	.011	.020	.726
	Quadratic	13510.930	1	13510.930	11.077	.001	.033	.913
	Cubic	1212.670	1	1212.670	1.805	.180	.006	.268
year * ROAlevel	Linear	591.311	2	295.655	.122	.885	.001	.069
	Quadratic	1560.931	2	780.465	.640	.528	.004	.157
	Cubic	1305.132	2	652.566	.971	.380	.006	.218
Error(year)	Linear	788510.802	325	2426.187				
	Quadratic	396422.225	325	1219.761				
	Cubic	218347.882	325	671.840				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
ROAlevel	59204.750	2	29602.375	1.514	.221	.009	.322
Error	6352576.925	325	19546.391				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	300.541	2.268	296.079	305.002
2	301.959	2.474	297.093	306.826
3	302.783	2.663	297.544	308.021
4	301.181	2.745	295.781	306.581
5	301.213	2.713	295.875	306.552
6	302.014	2.668	296.766	307.263
7	303.974	2.839	298.388	309.559
8	300.843	2.917	295.105	306.582
9	300.551	2.849	294.946	306.155
10	299.697	2.765	294.258	305.137
11	294.051	2.840	288.464	299.638
12	293.177	2.839	287.593	298.761



### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.419	1.281	1.000	-5.766	2.929
	3	-2.242	1.591	1.000	-7.641	3.157
	4	-.640	2.012	1.000	-7.468	6.187
	5	-.673	2.143	1.000	-7.942	6.597
	6	-1.474	2.309	1.000	-9.307	6.360
	7	-3.433	2.425	1.000	-11.661	4.795
	8	-.303	2.487	1.000	-8.740	8.134
	9	-.010	2.358	1.000	-8.011	7.991
	10	.843	2.356	1.000	-7.150	8.837
	11	6.490	2.545	.525	-2.145	15.125
	12	7.364	2.579	.261	-1.387	16.115
2	1	1.419	1.281	1.000	-2.929	5.766
	3	-.823	1.207	1.000	-4.917	3.271
	4	.778	1.788	1.000	-5.289	6.846
	5	.746	2.014	1.000	-6.086	7.578
	6	-.055	2.223	1.000	-7.598	7.488
	7	-2.014	2.329	1.000	-9.916	5.888
	8	1.116	2.343	1.000	-6.833	9.064
	9	1.409	2.281	1.000	-6.331	9.148
	10	2.262	2.292	1.000	-5.515	10.039
	11	7.909	2.455	.089	-.421	16.238
	12	8.783(*)	2.465	.028	.417	17.148
3	1	2.242	1.591	1.000	-3.157	7.641
	2	.823	1.207	1.000	-3.271	4.917
	4	1.602	1.584	1.000	-3.772	6.975
	5	1.569	2.010	1.000	-5.250	8.388

4	6	.768	2.219	1.000	-6.761	8.298
	7	-1.191	2.361	1.000	-9.202	6.820
	8	1.939	2.345	1.000	-6.019	9.897
	9	2.232	2.306	1.000	-5.594	10.057
	10	3.085	2.312	1.000	-4.760	10.931
	11	8.732(*)	2.408	.022	.562	16.901
	12	9.606(*)	2.411	.005	1.427	17.785
	1	.640	2.012	1.000	-6.187	7.468
	2	-.778	1.788	1.000	-6.846	5.289
	3	-1.602	1.584	1.000	-6.975	3.772
	5	-.033	1.378	1.000	-4.709	4.644
	6	-.833	1.839	1.000	-7.074	5.408
5	7	-2.793	1.998	1.000	-9.572	3.987
	8	.337	2.099	1.000	-6.785	7.460
	9	.630	2.138	1.000	-6.624	7.884
	10	1.484	2.184	1.000	-5.927	8.894
	11	7.130	2.335	.149	-.791	15.051
	12	8.004(*)	2.279	.033	.271	15.737
	1	.673	2.143	1.000	-6.597	7.942
	2	-.746	2.014	1.000	-7.578	6.086
	3	-1.569	2.010	1.000	-8.388	5.250
	4	.033	1.378	1.000	-4.644	4.709
	6	-.801	1.563	1.000	-6.105	4.503
	7	-2.760	1.815	1.000	-8.920	3.399
6	8	.370	2.027	1.000	-6.506	7.246
	9	.663	2.040	1.000	-6.259	7.584
	10	1.516	2.129	1.000	-5.706	8.739
	11	7.163	2.303	.126	-.651	14.976
	12	8.037(*)	2.271	.030	.331	15.742
	1	1.474	2.309	1.000	-6.360	9.307
	2	.055	2.223	1.000	-7.488	7.598
	3	-.768	2.219	1.000	-8.298	6.761
	4	.833	1.839	1.000	-5.408	7.074

7	5	.801	1.563	1.000	-4.503	6.105
	7	-1.959	1.241	1.000	-6.169	2.250
	8	1.171	1.672	1.000	-4.502	6.843
	9	1.463	1.810	1.000	-4.677	7.603
	10	2.317	1.969	1.000	-4.363	8.997
	11	7.963(*)	2.202	.023	.492	15.435
	12	8.837(*)	2.166	.004	1.487	16.187
	1	3.433	2.425	1.000	-4.795	11.661
	2	2.014	2.329	1.000	-5.888	9.916
	3	1.191	2.361	1.000	-6.820	9.202
	4	2.793	1.998	1.000	-3.987	9.572
	5	2.760	1.815	1.000	-3.399	8.920
8	6	1.959	1.241	1.000	-2.250	6.169
	8	3.130	1.434	.864	-1.737	7.997
	9	3.423	1.641	.921	-2.144	8.989
	10	4.276	1.874	.787	-2.084	10.636
	11	9.923(*)	2.157	.000	2.604	17.242
	12	10.797(*)	2.136	.000	3.549	18.044
	1	.303	2.487	1.000	-8.134	8.740
	2	-1.116	2.343	1.000	-9.064	6.833
	3	-1.939	2.345	1.000	-9.897	6.019
	4	-.337	2.099	1.000	-7.460	6.785
	5	-.370	2.027	1.000	-7.246	6.506
	6	-1.171	1.672	1.000	-6.843	4.502
9	7	-3.130	1.434	.864	-7.997	1.737
	9	.293	1.189	1.000	-3.743	4.328
	10	1.146	1.637	1.000	-4.407	6.700
	11	6.793(*)	1.886	.024	.395	13.191
	12	7.667(*)	1.961	.007	1.013	14.320
	1	.010	2.358	1.000	-7.991	8.011
	2	-1.409	2.281	1.000	-9.148	6.331
	3	-2.232	2.306	1.000	-10.057	5.594
	4	-.630	2.138	1.000	-7.884	6.624

10	5	-.663	2.040	1.000	-7.584	6.259
	6	-1.463	1.810	1.000	-7.603	4.677
	7	-3.423	1.641	.921	-8.989	2.144
	8	-.293	1.189	1.000	-4.328	3.743
	10	.854	1.407	1.000	-3.922	5.629
	11	6.500(*)	1.694	.010	.752	12.248
	12	7.374(*)	1.755	.002	1.419	13.329
	1	-.843	2.356	1.000	-8.837	7.150
	2	-2.262	2.292	1.000	-10.039	5.515
	3	-3.085	2.312	1.000	-10.931	4.760
	4	-1.484	2.184	1.000	-8.894	5.927
	5	-1.516	2.129	1.000	-8.739	5.706
11	6	-2.317	1.969	1.000	-8.997	4.363
	7	-4.276	1.874	.787	-10.636	2.084
	8	-1.146	1.637	1.000	-6.700	4.407
	9	-.854	1.407	1.000	-5.629	3.922
	11	5.646(*)	1.177	.000	1.653	9.640
	12	6.520(*)	1.386	.000	1.818	11.222
	1	-6.490	2.545	.525	-15.125	2.145
	2	-7.909	2.455	.089	-16.238	.421
	3	-8.732(*)	2.408	.022	-16.901	-.562
	4	-7.130	2.335	.149	-15.051	.791
	5	-7.163	2.303	.126	-14.976	.651
	6	-7.963(*)	2.202	.023	-15.435	-.492
12	7	-9.923(*)	2.157	.000	-17.242	-2.604
	8	-6.793(*)	1.886	.024	-13.191	-.395
	9	-6.500(*)	1.694	.010	-12.248	-.752
	10	-5.646(*)	1.177	.000	-9.640	-1.653
	12	.874	1.002	1.000	-2.527	4.275
	1	-7.364	2.579	.261	-16.115	1.387
	2	-8.783(*)	2.465	.028	-17.148	-.417
	3	-9.606(*)	2.411	.005	-17.785	-1.427
	4	-8.004(*)	2.279	.033	-15.737	-.271

5	-8.037(*)	2.271	.030	-15.742	-.331
6	-8.837(*)	2.166	.004	-16.187	-1.487
7	-10.797(*)	2.136	.000	-18.044	-3.549
8	-7.667(*)	1.961	.007	-14.320	-1.013
9	-7.374(*)	1.755	.002	-13.329	-1.419
10	-6.520(*)	1.386	.000	-11.222	-1.818
11	-.874	1.002	1.000	-4.275	2.527

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. ROA Level

### Estimates

Measure: MEASURE\_1

ROA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	296.560	4.457	287.792	305.328
Medium	297.715	3.152	291.515	303.915
High	306.221	4.457	297.452	314.989

### Pairwise Comparisons

Measure: MEASURE\_1

(I) ROA Level	(J) ROA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.155	5.459	.995	-14.257	11.946
	High	-9.661	6.303	.333	-24.789	5.467
Medium	Low	1.155	5.459	.995	-11.946	14.257

High	High	-8.505	5.459	.319	-21.606	4.596
	Low	9.661	6.303	.333	-5.467	24.789
	Medium	8.505	5.459	.319	-4.596	21.606

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	4933.729	2	2466.865	1.514	.221	.009	.322
Error	529381.410	325	1628.866				

The F tests the effect of ROA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. ROA Level \* year

Measure: MEASURE\_1

ROA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	296.878	4.303	288.413	305.343
	2	296.963	4.694	287.729	306.197
	3	300.098	5.052	290.158	310.037
	4	297.768	5.208	287.523	308.014
	5	295.683	5.148	285.554	305.811
	6	299.207	5.062	289.249	309.166
	7	301.841	5.387	291.243	312.440
	8	299.780	5.534	288.893	310.668
	9	298.780	5.405	288.147	309.414
	10	296.293	5.246	285.972	306.613
	11	288.866	5.388	278.265	299.466

Medium	12	286.561	5.386	275.966	297.156
	1	297.817	3.043	291.831	303.803
	2	302.024	3.319	295.495	308.554
	3	300.348	3.573	293.319	307.376
	4	298.494	3.683	291.249	305.739
	5	299.287	3.641	292.125	306.449
	6	300.652	3.579	293.611	307.694
	7	300.835	3.809	293.341	308.330
	8	296.506	3.913	288.807	304.205
	9	297.226	3.822	289.707	304.745
	10	296.226	3.710	288.928	303.523
	11	291.848	3.810	284.352	299.343
High	12	291.323	3.808	283.831	298.815
	1	306.927	4.303	298.462	315.392
	2	306.890	4.694	297.656	316.124
	3	307.902	5.052	297.963	317.842
	4	307.280	5.208	297.035	317.526
	5	308.671	5.148	298.542	318.799
	6	306.183	5.062	296.225	316.141
	7	309.244	5.387	298.645	319.842
	8	306.244	5.534	295.356	317.132
	9	305.646	5.405	295.013	316.280
	10	306.573	5.246	296.252	316.894
	11	301.439	5.388	290.838	312.040
	12	301.646	5.386	291.051	312.242

## APPENDIX K

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Closely Held Shares

#### *General Linear Model of Level of Closely Held Shares for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Level of Closely Held Shares	1	Low	88
	2	Medium	177
	3	High	88

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	22445.215	1.000	22445.215	20.427	.000	.055	.995
year * chslevel	Lower-bound	7088.111	2.000	3544.056	3.225	.041	.018	.613
Error(year)	Lower-bound	384582.986	350.000	1098.809				

a. Computed using alpha = .05

##### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	19365.136	1	19365.136	45.100	.000	.114	1.000
	Quadratic	520.164	1	520.164	3.174	.076	.009	.427



year * chslevel	Cubic	1811.674	1	1811.674	17.358	.000	.047	.986
	Linear	5811.153	2	2905.576	6.767	.001	.037	.917
	Quadratic	6.327	2	3.163	.019	.981	.000	.053
Error(year)	Cubic	361.958	2	180.979	1.734	.178	.010	.363
	Linear	150284.132	350	429.383				
	Quadratic	57354.362	350	163.870				
	Cubic	36528.988	350	104.369				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	18715.879	2	9357.940	4.285	.015	.024	.745
Error	764414.944	350	2184.043				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.355	.919	49.549	53.162
2	52.904	.962	51.011	54.797
3	53.651	1.077	51.533	55.768

4	51.697	.977	49.775	53.620
5	51.797	.976	49.879	53.716
6	50.217	.893	48.461	51.973
7	50.155	.925	48.336	51.974
8	48.654	.901	46.882	50.426
9	47.897	.918	46.091	49.703
10	46.723	.834	45.082	48.364
11	46.219	.835	44.577	47.862
12	46.834	.902	45.059	48.608

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.549	.479	.086	-3.174	.077
	3	-2.295	.690	.062	-4.633	.043
	4	-.342	.806	1.000	-3.076	2.392
	5	-.442	.894	1.000	-3.473	2.589
	6	1.138	.905	1.000	-1.929	4.206
	7	1.200	.911	1.000	-1.890	4.290
	8	2.701	.916	.201	-.404	5.807
	9	3.458(*)	.909	.011	.374	6.542
	10	4.633(*)	.924	.000	1.499	7.766
	11	5.136(*)	.937	.000	1.958	8.314
	12	4.522(*)	.966	.000	1.247	7.796
	2	1.549	.479	.086	-.077	3.174
2	3	-.747	.522	1.000	-2.515	1.022
	4	1.207	.747	.999	-1.328	3.741
	5	1.107	.856	1.000	-1.795	4.008
	6	2.687	.903	.188	-.376	5.750

3	7	2.749	.925	.189	-.388	5.886
	8	4.250(*)	.928	.000	1.105	7.395
	9	5.007(*)	.930	.000	1.852	8.161
	10	6.181(*)	.943	.000	2.982	9.380
	11	6.684(*)	.965	.000	3.412	9.957
	12	6.070(*)	.991	.000	2.709	9.431
	1	2.295	.690	.062	-.043	4.633
	2	.747	.522	1.000	-1.022	2.515
	4	1.953	.664	.206	-.298	4.205
	5	1.853	.843	.853	-1.005	4.712
	6	3.434(*)	.916	.014	.329	6.539
	7	3.496(*)	.943	.016	.297	6.694
4	8	4.997(*)	.949	.000	1.780	8.213
	9	5.753(*)	.956	.000	2.510	8.997
	10	6.928(*)	.982	.000	3.597	10.258
	11	7.431(*)	1.015	.000	3.990	10.873
	12	6.817(*)	1.053	.000	3.246	10.387
	1	.342	.806	1.000	-2.392	3.076
	2	-1.207	.747	.999	-3.741	1.328
	3	-1.953	.664	.206	-4.205	.298
	5	-.100	.611	1.000	-2.172	1.972
	6	1.480	.769	.976	-1.127	4.088
	7	1.542	.811	.981	-1.206	4.291
	8	3.043(*)	.843	.023	.184	5.902
5	9	3.800(*)	.846	.001	.933	6.667
	10	4.974(*)	.864	.000	2.045	7.904
	11	5.478(*)	.899	.000	2.428	8.527
	12	4.863(*)	.947	.000	1.651	8.075
	1	.442	.894	1.000	-2.589	3.473
	2	-1.107	.856	1.000	-4.008	1.795
	3	-1.853	.843	.853	-4.712	1.005
	4	.100	.611	1.000	-1.972	2.172
	6	1.580	.613	.498	-.499	3.660

6	7	1.642	.727	.805	-.822	4.107
	8	3.143(*)	.802	.007	.424	5.863
	9	3.900(*)	.857	.000	.995	6.805
	10	5.075(*)	.857	.000	2.167	7.982
	11	5.578(*)	.868	.000	2.635	8.521
	12	4.964(*)	.891	.000	1.944	7.983
	1	-1.138	.905	1.000	-4.206	1.929
	2	-2.687	.903	.188	-5.750	.376
	3	-3.434(*)	.916	.014	-6.539	-.329
	4	-1.480	.769	.976	-4.088	1.127
	5	-1.580	.613	.498	-3.660	.499
	7	.062	.530	1.000	-1.735	1.859
7	8	1.563	.657	.698	-.666	3.792
	9	2.320	.740	.116	-.190	4.829
	10	3.494(*)	.786	.001	.830	6.158
	11	3.998(*)	.790	.000	1.318	6.678
	12	3.383(*)	.782	.001	.730	6.036
	1	-1.200	.911	1.000	-4.290	1.890
	2	-2.749	.925	.189	-5.886	.388
	3	-3.496(*)	.943	.016	-6.694	-.297
	4	-1.542	.811	.981	-4.291	1.206
	5	-1.642	.727	.805	-4.107	.822
	6	-.062	.530	1.000	-1.859	1.735
	8	1.501	.543	.330	-.342	3.344
8	9	2.258(*)	.638	.030	.095	4.420
	10	3.432(*)	.707	.000	1.035	5.829
	11	3.936(*)	.730	.000	1.459	6.412
	12	3.321(*)	.694	.000	.967	5.675
	1	-2.701	.916	.201	-5.807	.404
	2	-4.250(*)	.928	.000	-7.395	-1.105
	3	-4.997(*)	.949	.000	-8.213	-1.780
	4	-3.043(*)	.843	.023	-5.902	-.184
	5	-3.143(*)	.802	.007	-5.863	-.424

9	6	-1.563	.657	.698	-3.792	.666
	7	-1.501	.543	.330	-3.344	.342
	9	.757	.380	.959	-.531	2.045
	10	1.931(*)	.551	.034	.062	3.801
	11	2.435(*)	.577	.002	.477	4.392
	12	1.820	.582	.118	-.151	3.792
	1	-3.458(*)	.909	.011	-6.542	-.374
	2	-5.007(*)	.930	.000	-8.161	-1.852
	3	-5.753(*)	.956	.000	-8.997	-2.510
	4	-3.800(*)	.846	.001	-6.667	-.933
	5	-3.900(*)	.857	.000	-6.805	-.995
	6	-2.320	.740	.116	-4.829	.190
10	7	-2.258(*)	.638	.030	-4.420	-.095
	8	-.757	.380	.959	-2.045	.531
	10	1.174	.460	.521	-.385	2.734
	11	1.678	.546	.141	-.175	3.531
	12	1.063	.566	.984	-.856	2.983
	1	-4.633(*)	.924	.000	-7.766	-1.499
	2	-6.181(*)	.943	.000	-9.380	-2.982
	3	-6.928(*)	.982	.000	-10.258	-3.597
	4	-4.974(*)	.864	.000	-7.904	-2.045
	5	-5.075(*)	.857	.000	-7.982	-2.167
	6	-3.494(*)	.786	.001	-6.158	-.830
	7	-3.432(*)	.707	.000	-5.829	-1.035
11	8	-1.931(*)	.551	.034	-3.801	-.062
	9	-1.174	.460	.521	-2.734	.385
	11	.503	.330	1.000	-.616	1.623
	12	-.111	.516	1.000	-1.861	1.639
	1	-5.136(*)	.937	.000	-8.314	-1.958
	2	-6.684(*)	.965	.000	-9.957	-3.412
	3	-7.431(*)	1.015	.000	-10.873	-3.990
	4	-5.478(*)	.899	.000	-8.527	-2.428
	5	-5.578(*)	.868	.000	-8.521	-2.635

12	6	-3.998(*)	.790	.000	-6.678	-1.318
	7	-3.936(*)	.730	.000	-6.412	-1.459
	8	-2.435(*)	.577	.002	-4.392	-.477
	9	-1.678	.546	.141	-3.531	.175
	10	-.503	.330	1.000	-1.623	.616
	12	-.614	.390	1.000	-1.938	.709
	1	-4.522(*)	.966	.000	-7.796	-1.247
	2	-6.070(*)	.991	.000	-9.431	-2.709
	3	-6.817(*)	1.053	.000	-10.387	-3.246
	4	-4.863(*)	.947	.000	-8.075	-1.651
	5	-4.964(*)	.891	.000	-7.983	-1.944
	6	-3.383(*)	.782	.001	-6.036	-.730
	7	-3.321(*)	.694	.000	-5.675	-.967
	8	-1.820	.582	.118	-3.792	.151
	9	-1.063	.566	.984	-2.983	.856
	10	.111	.516	1.000	-1.639	1.861
	11	.614	.390	1.000	-.709	1.938

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	53.096	1.438	50.267	55.924
Medium	49.038	1.014	47.044	51.033
High	47.392	1.438	44.564	50.221

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1559.657	2	779.828	4.285	.015	.024	.745
Error	63701.245	350	182.004				

The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	4.058	1.760	.064	-.164	8.279
	High	5.704(*)	2.034	.016	.824	10.583
Medium	Low	-4.058	1.760	.064	-8.279	.164
	High	1.646	1.760	.726	-2.576	5.868
High	Low	-5.704(*)	2.034	.016	-10.583	-.824
	Medium	-1.646	1.760	.726	-5.868	2.576

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Sidak.

### 3. Level of Closely Held Shares \* year

Measure: MEASURE\_1

Level of Closely Held Shares	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.443	1.744	53.014	59.873

Medium	2	59.193	1.827	55.600	62.786
	3	59.716	2.044	55.696	63.736
	4	55.614	1.856	51.964	59.263
	5	56.216	1.852	52.573	59.859
	6	53.875	1.695	50.542	57.208
	7	53.477	1.755	50.025	56.930
	8	51.159	1.710	47.795	54.523
	9	49.170	1.743	45.742	52.599
	10	47.318	1.584	44.202	50.434
	11	46.864	1.586	43.745	49.982
	12	48.102	1.713	44.734	51.471
	1	50.407	1.230	47.989	52.825
	2	50.768	1.288	48.235	53.302
	3	52.486	1.441	49.651	55.320
	4	50.921	1.308	48.347	53.494
	5	50.006	1.306	47.437	52.574
	6	49.446	1.195	47.096	51.797
	7	50.158	1.238	47.724	52.592
	8	47.667	1.206	45.295	50.039
	9	47.271	1.229	44.854	49.689
	10	46.407	1.117	44.210	48.604
	11	46.158	1.118	43.959	48.357
	12	46.763	1.208	44.387	49.138
High	1	47.216	1.744	43.786	50.645
	2	48.750	1.827	45.157	52.343
	3	48.750	2.044	44.730	52.770
	4	48.557	1.856	44.907	52.207
	5	49.170	1.852	45.528	52.813
	6	47.330	1.695	43.996	50.663
	7	46.830	1.755	43.377	50.282
	8	47.136	1.710	43.772	50.500
	9	47.250	1.743	43.822	50.678



10	46.443	1.584	43.327	49.559
11	45.636	1.586	42.518	48.755
12	45.636	1.713	42.268	49.005

### ***General Linear Model of Level of Closely Held Shares Level for Diversity***

#### **Between-Subjects Factors**

		Value Label	N
Level of Closely Held Shares	1	Low	88
	2	Medium	177
	3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	52915.387	1.000	52915.387	58.064	.000	.142	1.000
year * chslevel	Lower-bound	4793.505	2.000	2396.753	2.630	.074	.015	.522
Error(year)	Lower-bound	318962.392	350.000	911.321				

a. Computed using alpha = .05

#### **Tests of Within-Subjects Contrasts**

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	50873.581	1	50873.581	145.013	.000	.293	1.000
	Quadratic	1319.159	1	1319.159	7.976	.005	.022	.804
	Cubic	132.244	1	132.244	1.834	.177	.005	.272

year * chslevel	Linear	3408.738	2	1704.369	4.858	.008	.027	.800
	Quadratic	55.021	2	27.511	.166	.847	.001	.076
	Cubic	104.499	2	52.249	.724	.485	.004	.172
	Linear	122787.582	350	350.822				
	Quadratic	57890.281	350	165.401				
	Cubic	25242.971	350	72.123				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	39272.846	2	19636.423	9.550	.000	.052	.980
Error	719672.327	350	2056.207				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.379	.517	43.362	45.395
2	45.133	.585	43.981	46.284
3	46.003	.658	44.708	47.297
4	48.836	.812	47.240	50.432
5	49.922	.834	48.281	51.562

6	50.529	.917	48.727	52.332
7	51.792	.945	49.932	53.651
8	52.725	.974	50.808	54.641
9	53.649	1.029	51.625	55.672
10	54.639	1.032	52.611	56.668
11	55.422	1.051	53.355	57.489
12	54.934	1.024	52.920	56.947

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.754	.247	.151	-1.593	.085
	3	-1.624(*)	.394	.003	-2.960	-.288
	4	-4.457(*)	.601	.000	-6.497	-2.418
	5	-5.543(*)	.636	.000	-7.701	-3.385
	6	-6.151(*)	.768	.000	-8.753	-3.548
	7	-7.413(*)	.812	.000	-10.165	-4.661
	8	-8.346(*)	.840	.000	-11.196	-5.496
	9	-9.270(*)	.905	.000	-12.339	-6.202
	10	-10.261(*)	.895	.000	-13.297	-7.224
	11	-11.043(*)	.903	.000	-14.106	-7.981
	12	-10.555(*)	.885	.000	-13.556	-7.554
	2	.754	.247	.151	-.085	1.593
2	3	-.870	.313	.315	-1.931	.191
	4	-3.703(*)	.556	.000	-5.587	-1.820
	5	-4.789(*)	.597	.000	-6.815	-2.763
	6	-5.397(*)	.716	.000	-7.825	-2.969
	7	-6.659(*)	.755	.000	-9.218	-4.100
	8	-7.592(*)	.777	.000	-10.225	-4.959

3	9	-8.516(*)	.854	.000	-11.411	-5.621
	10	-9.507(*)	.841	.000	-12.359	-6.654
	11	-10.289(*)	.847	.000	-13.161	-7.417
	12	-9.801(*)	.834	.000	-12.630	-6.973
	1	1.624(*)	.394	.003	.288	2.960
	2	.870	.313	.315	-.191	1.931
	4	-2.833(*)	.505	.000	-4.544	-1.123
	5	-3.919(*)	.584	.000	-5.898	-1.940
	6	-4.527(*)	.715	.000	-6.951	-2.102
	7	-5.789(*)	.759	.000	-8.364	-3.214
	8	-6.722(*)	.753	.000	-9.275	-4.169
	9	-7.646(*)	.834	.000	-10.474	-4.819
4	10	-8.637(*)	.838	.000	-11.480	-5.794
	11	-9.419(*)	.826	.000	-12.220	-6.619
	12	-8.931(*)	.819	.000	-11.708	-6.155
	1	4.457(*)	.601	.000	2.418	6.497
	2	3.703(*)	.556	.000	1.820	5.587
	3	2.833(*)	.505	.000	1.123	4.544
	5	-1.086	.463	.728	-2.655	.483
	6	-1.693	.636	.417	-3.850	.464
	7	-2.956(*)	.735	.005	-5.449	-.462
	8	-3.889(*)	.727	.000	-6.353	-1.424
	9	-4.813(*)	.815	.000	-7.577	-2.048
	10	-5.803(*)	.859	.000	-8.716	-2.890
5	11	-6.586(*)	.868	.000	-9.529	-3.642
	12	-6.098(*)	.851	.000	-8.984	-3.212
	1	5.543(*)	.636	.000	3.385	7.701
	2	4.789(*)	.597	.000	2.763	6.815
	3	3.919(*)	.584	.000	1.940	5.898
	4	1.086	.463	.728	-.483	2.655
	6	-.608	.509	1.000	-2.335	1.119
	7	-1.870	.635	.203	-4.022	.282
	8	-2.803(*)	.664	.002	-5.056	-.550

6	9	-3.727(*)	.741	.000	-6.241	-1.214
	10	-4.718(*)	.822	.000	-7.506	-1.930
	11	-5.500(*)	.838	.000	-8.342	-2.658
	12	-5.012(*)	.815	.000	-7.776	-2.248
	1	6.151(*)	.768	.000	3.548	8.753
	2	5.397(*)	.716	.000	2.969	7.825
	3	4.527(*)	.715	.000	2.102	6.951
	4	1.693	.636	.417	-.464	3.850
	5	.608	.509	1.000	-1.119	2.335
	7	-1.262	.477	.433	-2.881	.356
	8	-2.195(*)	.621	.030	-4.302	-.088
	9	-3.120(*)	.763	.004	-5.706	-.533
7	10	-4.110(*)	.857	.000	-7.014	-1.206
	11	-4.893(*)	.886	.000	-7.898	-1.887
	12	-4.405(*)	.843	.000	-7.264	-1.545
	1	7.413(*)	.812	.000	4.661	10.165
	2	6.659(*)	.755	.000	4.100	9.218
	3	5.789(*)	.759	.000	3.214	8.364
	4	2.956(*)	.735	.005	.462	5.449
	5	1.870	.635	.203	-.282	4.022
	6	1.262	.477	.433	-.356	2.881
	8	-.933	.492	.982	-2.601	.735
	9	-1.857	.680	.354	-4.162	.447
	10	-2.848(*)	.792	.024	-5.532	-.163
8	11	-3.630(*)	.832	.001	-6.452	-.808
	12	-3.142(*)	.788	.005	-5.815	-.470
	1	8.346(*)	.840	.000	5.496	11.196
	2	7.592(*)	.777	.000	4.959	10.225
	3	6.722(*)	.753	.000	4.169	9.275
	4	3.889(*)	.727	.000	1.424	6.353
	5	2.803(*)	.664	.002	.550	5.056
	6	2.195(*)	.621	.030	.088	4.302
	7	.933	.492	.982	-.735	2.601

9	9	-.924	.519	.994	-2.684	.835
	10	-1.915	.675	.274	-4.204	.375
	11	-2.697(*)	.723	.015	-5.150	-.245
	12	-2.209	.712	.128	-4.623	.205
	1	9.270(*)	.905	.000	6.202	12.339
	2	8.516(*)	.854	.000	5.621	11.411
	3	7.646(*)	.834	.000	4.819	10.474
	4	4.813(*)	.815	.000	2.048	7.577
	5	3.727(*)	.741	.000	1.214	6.241
	6	3.120(*)	.763	.004	.533	5.706
	7	1.857	.680	.354	-.447	4.162
	8	.924	.519	.994	-.835	2.684
10	10	-.990	.557	.995	-2.880	.899
	11	-1.773	.676	.453	-4.065	.519
	12	-1.285	.649	.962	-3.484	.914
	1	10.261(*)	.895	.000	7.224	13.297
	2	9.507(*)	.841	.000	6.654	12.359
	3	8.637(*)	.838	.000	5.794	11.480
	4	5.803(*)	.859	.000	2.890	8.716
	5	4.718(*)	.822	.000	1.930	7.506
	6	4.110(*)	.857	.000	1.206	7.014
	7	2.848(*)	.792	.024	.163	5.532
	8	1.915	.675	.274	-.375	4.204
	9	.990	.557	.995	-.899	2.880
11	11	-.783	.480	.999	-2.410	.845
	12	-.295	.581	1.000	-2.265	1.676
	1	11.043(*)	.903	.000	7.981	14.106
	2	10.289(*)	.847	.000	7.417	13.161
	3	9.419(*)	.826	.000	6.619	12.220
	4	6.586(*)	.868	.000	3.642	9.529
	5	5.500(*)	.838	.000	2.658	8.342
	6	4.893(*)	.886	.000	1.887	7.898
	7	3.630(*)	.832	.001	.808	6.452

12	8	2.697(*)	.723	.015	.245	5.150
	9	1.773	.676	.453	-.519	4.065
	10	.783	.480	.999	-.845	2.410
	12	.488	.418	1.000	-.928	1.904
	1	10.555(*)	.885	.000	7.554	13.556
	2	9.801(*)	.834	.000	6.973	12.630
	3	8.931(*)	.819	.000	6.155	11.708
	4	6.098(*)	.851	.000	3.212	8.984
	5	5.012(*)	.815	.000	2.248	7.776
	6	4.405(*)	.843	.000	1.545	7.264
	7	3.142(*)	.788	.005	.470	5.815
	8	2.209	.712	.128	-.205	4.623
	9	1.285	.649	.962	-.914	3.484
	10	.295	.581	1.000	-1.676	2.265
	11	-.488	.418	1.000	-1.904	.928

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	55.372	1.395	52.628	58.117
Medium	48.387	.984	46.452	50.322
High	48.231	1.395	45.487	50.976

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3272.737	2	1636.369	9.550	.000	.052	.980
Error	59972.694	350	171.351				

The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	6.985(*)	1.707	.000	2.889	11.082
	High	7.141(*)	1.973	.001	2.406	11.876
Medium	Low	-6.985(*)	1.707	.000	-11.082	-2.889
	High	.156	1.707	1.000	-3.941	4.252
High	Low	-7.141(*)	1.973	.001	-11.876	-2.406
	Medium	-.156	1.707	1.000	-4.252	3.941

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Closely Held Shares \* year

Measure: MEASURE\_1

Level of Closely Held Shares	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.886	.981	44.957	48.816
	2	47.716	1.112	45.530	49.902
	3	49.432	1.250	46.974	51.890
	4	53.773	1.541	50.742	56.803
	5	54.750	1.584	51.636	57.864



Medium	6	54.239	1.740	50.816	57.661
	7	56.045	1.795	52.516	59.575
	8	57.034	1.850	53.396	60.673
	9	58.159	1.953	54.318	62.000
	10	61.580	1.958	57.728	65.431
	11	63.364	1.995	59.439	67.288
	12	61.489	1.944	57.666	65.311
	1	43.090	.692	41.730	44.451
	2	43.966	.784	42.425	45.508
	3	44.667	.881	42.933	46.400
	4	46.599	1.086	44.462	48.736
	5	47.390	1.117	45.194	49.586
High	6	48.520	1.227	46.107	50.933
	7	50.011	1.265	47.522	52.500
	8	50.446	1.304	47.881	53.012
	9	51.379	1.377	48.670	54.087
	10	51.452	1.381	48.736	54.168
	11	51.220	1.407	48.453	53.987
	12	51.904	1.370	49.209	54.599
	1	43.159	.981	41.229	45.089
	2	43.716	1.112	41.530	45.902
	3	43.909	1.250	41.451	46.367
	4	46.136	1.541	43.106	49.167
	5	47.625	1.584	44.511	50.739
	6	48.830	1.740	45.407	52.252
	7	49.318	1.795	45.788	52.848
	8	50.693	1.850	47.055	54.332
	9	51.409	1.953	47.568	55.250
	10	50.886	1.958	47.035	54.738
	11	51.682	1.995	47.757	55.606
	12	51.409	1.944	47.587	55.232

## General Linear Model of Level of Closely Held Shares for Employee Relations

### Between-Subjects Factors

		Value Label	N
Level of Closely Held Shares	1	Low	88
	2	Medium	177
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	11200.911	1.000	11200.911	9.349	.002	.026	.862
year * chslevel	Lower-bound	1822.732	2.000	911.366	.761	.468	.004	.179
Error(year)	Lower-bound	419346.471	350.000	1198.133				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6257.374	1	6257.374	12.441	.000	.034	.940
	Quadratic	4303.786	1	4303.786	21.830	.000	.059	.997
	Cubic	6.353	1	6.353	.053	.818	.000	.056
year * chslevel	Linear	963.206	2	481.603	.958	.385	.005	.216
	Quadratic	270.461	2	135.231	.686	.504	.004	.165
	Cubic	46.837	2	23.418	.195	.823	.001	.080
Error(year)	Linear	176036.309	350	502.961				
	Quadratic	69002.221	350	197.149				

Cubic	42131.185	350	120.375				
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a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	928.616	2	464.308	.222	.801	.001	.085
Error	732774.022	350	2093.640				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	45.659	.683	44.316	47.003
2	47.807	.782	46.269	49.345
3	48.472	.821	46.858	50.087
4	50.123	.870	48.411	51.835
5	50.709	.913	48.913	52.506
6	50.033	.893	48.277	51.788
7	50.974	.965	49.076	52.873
8	51.584	1.041	49.537	53.630
9	51.310	1.026	49.291	53.328
10	51.759	1.026	49.742	53.777

11	50.778	1.015	48.781	52.775
12	49.931	1.042	47.881	51.981

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.148(*)	.531	.004	-3.950	-.346
	3	-2.813(*)	.624	.001	-4.927	-.698
	4	-4.463(*)	.818	.000	-7.235	-1.691
	5	-5.050(*)	.826	.000	-7.850	-2.250
	6	-4.373(*)	.816	.000	-7.140	-1.607
	7	-5.315(*)	.876	.000	-8.286	-2.343
	8	-5.924(*)	.977	.000	-9.237	-2.612
	9	-5.650(*)	.965	.000	-8.923	-2.377
	10	-6.100(*)	1.029	.000	-9.589	-2.611
	11	-5.118(*)	1.036	.000	-8.631	-1.605
	12	-4.272(*)	1.062	.005	-7.872	-.671
2	1	2.148(*)	.531	.004	.346	3.950
	3	-.665	.488	1.000	-2.320	.991
	4	-2.315	.748	.131	-4.850	.220
	5	-2.902(*)	.789	.018	-5.577	-.227
	6	-2.225	.808	.337	-4.966	.515
	7	-3.167(*)	.872	.021	-6.122	-.211
	8	-3.776(*)	.969	.008	-7.061	-.492
	9	-3.502(*)	.963	.021	-6.767	-.238
	10	-3.952(*)	1.022	.009	-7.416	-.488
	11	-2.970	1.034	.248	-6.475	.535
	12	-2.124	1.061	.956	-5.722	1.474
3	1	2.813(*)	.624	.001	.698	4.927

4	2	.665	.488	1.000	-.991	2.320
	4	-1.650	.606	.364	-3.707	.406
	5	-2.237	.746	.174	-4.766	.291
	6	-1.561	.801	.971	-4.277	1.156
	7	-2.502	.841	.187	-5.354	.350
	8	-3.111	.929	.058	-6.261	.038
	9	-2.837	.912	.125	-5.931	.256
	10	-3.287(*)	.952	.040	-6.515	-.060
	11	-2.305	.966	.688	-5.580	.969
	12	-1.459	.991	1.000	-4.821	1.902
	1	4.463(*)	.818	.000	1.691	7.235
	2	2.315	.748	.131	-.220	4.850
5	3	1.650	.606	.364	-.406	3.707
	5	-.587	.557	1.000	-2.475	1.301
	6	.090	.782	1.000	-2.560	2.740
	7	-.852	.829	1.000	-3.662	1.959
	8	-1.461	.921	1.000	-4.585	1.663
	9	-1.187	.920	1.000	-4.307	1.933
	10	-1.637	.987	.999	-4.984	1.711
	11	-.655	.999	1.000	-4.041	2.731
	12	.191	1.024	1.000	-3.282	3.665
	1	5.050(*)	.826	.000	2.250	7.850
	2	2.902(*)	.789	.018	.227	5.577
	3	2.237	.746	.174	-.291	4.766
6	4	.587	.557	1.000	-1.301	2.475
	6	.677	.650	1.000	-1.526	2.880
	7	-.265	.765	1.000	-2.859	2.330
	8	-.874	.914	1.000	-3.973	2.225
	9	-.600	.904	1.000	-3.666	2.466
	10	-1.050	1.011	1.000	-4.477	2.377
	11	-.068	1.036	1.000	-3.582	3.446
	12	.778	1.077	1.000	-2.872	4.429
	1	4.373(*)	.816	.000	1.607	7.140

7	2	2.225	.808	.337	-.515	4.966
	3	1.561	.801	.971	-1.156	4.277
	4	-.090	.782	1.000	-2.740	2.560
	5	-.677	.650	1.000	-2.880	1.526
	7	-.941	.465	.948	-2.519	.637
	8	-1.551	.669	.752	-3.818	.716
	9	-1.277	.717	.995	-3.709	1.156
	10	-1.727	.847	.942	-4.600	1.146
	11	-.745	.900	1.000	-3.798	2.308
	12	.101	.934	1.000	-3.065	3.267
	1	5.315(*)	.876	.000	2.343	8.286
	2	3.167(*)	.872	.021	.211	6.122
8	3	2.502	.841	.187	-.350	5.354
	4	.852	.829	1.000	-1.959	3.662
	5	.265	.765	1.000	-2.330	2.859
	6	.941	.465	.948	-.637	2.519
	8	-.609	.525	1.000	-2.391	1.172
	9	-.335	.614	1.000	-2.417	1.747
	10	-.785	.780	1.000	-3.430	1.859
	11	.197	.845	1.000	-2.669	3.062
	12	1.043	.893	1.000	-1.986	4.072
	1	5.924(*)	.977	.000	2.612	9.237
	2	3.776(*)	.969	.008	.492	7.061
	3	3.111	.929	.058	-.038	6.261
9	4	1.461	.921	1.000	-1.663	4.585
	5	.874	.914	1.000	-2.225	3.973
	6	1.551	.669	.752	-.716	3.818
	7	.609	.525	1.000	-1.172	2.391
	9	.274	.423	1.000	-1.159	1.708
	10	-.176	.643	1.000	-2.355	2.003
	11	.806	.715	1.000	-1.619	3.231
	12	1.652	.774	.894	-.972	4.277
	1	5.650(*)	.965	.000	2.377	8.923

10	2	3.502(*)	.963	.021	.238	6.767
	3	2.837	.912	.125	-.256	5.931
	4	1.187	.920	1.000	-1.933	4.307
	5	.600	.904	1.000	-2.466	3.666
	6	1.277	.717	.995	-1.156	3.709
	7	.335	.614	1.000	-1.747	2.417
	8	-.274	.423	1.000	-1.708	1.159
	10	-.450	.542	1.000	-2.288	1.388
	11	.532	.643	1.000	-1.650	2.714
	12	1.378	.711	.973	-1.031	3.788
	1	6.100(*)	1.029	.000	2.611	9.589
	2	3.952(*)	1.022	.009	.488	7.416
11	3	3.287(*)	.952	.040	.060	6.515
	4	1.637	.987	.999	-1.711	4.984
	5	1.050	1.011	1.000	-2.377	4.477
	6	1.727	.847	.942	-1.146	4.600
	7	.785	.780	1.000	-1.859	3.430
	8	.176	.643	1.000	-2.003	2.355
	9	.450	.542	1.000	-1.388	2.288
	11	.982	.385	.525	-.324	2.288
	12	1.828(*)	.494	.016	.153	3.503
	1	5.118(*)	1.036	.000	1.605	8.631
	2	2.970	1.034	.248	-.535	6.475
	3	2.305	.966	.688	-.969	5.580
12	4	.655	.999	1.000	-2.731	4.041
	5	.068	1.036	1.000	-3.446	3.582
	6	.745	.900	1.000	-2.308	3.798
	7	-.197	.845	1.000	-3.062	2.669
	8	-.806	.715	1.000	-3.231	1.619
	9	-.532	.643	1.000	-2.714	1.650
	10	-.982	.385	.525	-2.288	.324
	12	.846	.319	.427	-.236	1.929
	1	4.272(*)	1.062	.005	.671	7.872

2	2.124	1.061	.956	-1.474	5.722
3	1.459	.991	1.000	-1.902	4.821
4	-.191	1.024	1.000	-3.665	3.282
5	-.778	1.077	1.000	-4.429	2.872
6	-.101	.934	1.000	-3.267	3.065
7	-1.043	.893	1.000	-4.072	1.986
8	-1.652	.774	.894	-4.277	.972
9	-1.378	.711	.973	-3.788	1.031
10	-1.828(*)	.494	.016	-3.503	-.153
11	-.846	.319	.427	-1.929	.236

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	50.583	1.408	47.814	53.353
Medium	49.944	.993	47.991	51.897
High	49.258	1.408	46.488	52.027

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	77.385	2	38.692	.222	.801	.001	.085
Error	61064.502	350	174.470				



The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.639	1.723	.976	-3.494	4.773
	High	1.326	1.991	.879	-3.452	6.103
Medium	Low	-.639	1.723	.976	-4.773	3.494
	High	.686	1.723	.970	-3.447	4.820
High	Low	-1.326	1.991	.879	-6.103	3.452
	Medium	-.686	1.723	.970	-4.820	3.447

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Closely Held Shares \* year

Measure: MEASURE\_1

Level of Closely Held Shares	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	45.545	1.297	42.994	48.097
	2	47.818	1.485	44.898	50.738
	3	48.455	1.558	45.389	51.520
	4	51.273	1.653	48.023	54.523
	5	50.636	1.734	47.226	54.047
	6	50.000	1.694	46.668	53.332
	7	51.091	1.833	47.487	54.695
	8	52.000	1.975	48.115	55.885
	9	52.091	1.949	48.259	55.923
	10	52.818	1.948	48.987	56.649

Medium	11	53.273	1.928	49.481	57.064
	12	52.000	1.979	48.108	55.892
	1	45.797	.915	43.998	47.595
	2	47.695	1.047	45.636	49.754
	3	48.689	1.099	46.528	50.851
	4	49.277	1.165	46.985	51.569
	5	51.401	1.223	48.996	53.806
	6	49.734	1.195	47.385	52.084
	7	50.650	1.292	48.108	53.191
	8	51.842	1.393	49.102	54.581
	9	51.565	1.374	48.863	54.267
	10	52.006	1.373	49.305	54.707
High	11	50.424	1.359	47.750	53.097
	12	50.249	1.395	47.505	52.993
	1	45.636	1.297	43.085	48.187
	2	47.909	1.485	44.989	50.829
	3	48.273	1.558	45.208	51.338
	4	49.818	1.653	46.568	53.068
	5	50.091	1.734	46.681	53.501
	6	50.364	1.694	47.031	53.696
	7	51.182	1.833	47.577	54.786
	8	50.909	1.975	47.024	54.794
	9	50.273	1.949	46.440	54.105
	10	50.455	1.948	46.624	54.285
	11	48.636	1.928	44.845	52.428
	12	47.545	1.979	43.654	51.437

### ***General Linear Model of Level of Closely Held Shares for Environment***

**Between-Subjects Factors**

		Value Label	N
Level of Closely Held Shares	1	Low	88
	2	Medium	177
	3	High	88

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	3239.779	1.000	3239.779	3.530	.061	.010	.466
year * chslevel	Lower-bound	2461.546	2.000	1230.773	1.341	.263	.008	.289
Error(year)	Lower-bound	321198.766	350.000	917.711				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	179.843	1	179.843	.606	.437	.002	.121
	Quadratic	42.081	1	42.081	.254	.615	.001	.079
	Cubic	1047.209	1	1047.209	9.028	.003	.025	.850
year * chslevel	Linear	97.536	2	48.768	.164	.849	.001	.075
	Quadratic	119.144	2	59.572	.359	.698	.002	.108
	Cubic	799.215	2	399.608	3.445	.033	.019	.644
Error(year)	Linear	103948.042	350	296.994				
	Quadratic	58013.664	350	165.753				
	Cubic	40597.235	350	115.992				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	6953.443	2	3476.721	1.408	.246	.008	.302
Error	864103.871	350	2468.868				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.957	.796	49.392	52.522
2	49.649	.873	47.932	51.366
3	49.167	.928	47.341	50.992
4	48.653	.954	46.776	50.530
5	49.379	.919	47.571	51.187
6	50.977	.952	49.106	52.849
7	51.549	1.014	49.554	53.543
8	51.299	1.016	49.302	53.297
9	50.618	.986	48.679	52.556
10	50.614	.965	48.716	52.512
11	49.166	.988	47.223	51.109
12	50.599	.906	48.817	52.381

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.309	.564	.750	-.602	3.219
	3	1.790	.676	.428	-.501	4.082
	4	2.305	.735	.116	-.187	4.797
	5	1.578	.759	.924	-.994	4.150
	6	-.020	.766	1.000	-2.616	2.576
	7	-.592	.795	1.000	-3.286	2.103
	8	-.342	.824	1.000	-3.137	2.453
	9	.339	.864	1.000	-2.591	3.270
	10	.343	.802	1.000	-2.375	3.062
	11	1.791	.884	.947	-1.206	4.788
	12	.358	.864	1.000	-2.572	3.288
2	1	-1.309	.564	.750	-3.219	.602
	3	.482	.468	1.000	-1.106	2.069
	4	.996	.622	1.000	-1.114	3.107
	5	.270	.690	1.000	-2.069	2.608
	6	-1.329	.782	.998	-3.981	1.324
	7	-1.900	.808	.724	-4.641	.841
	8	-1.651	.838	.965	-4.493	1.192
	9	-.969	.852	1.000	-3.858	1.919
	10	-.965	.789	1.000	-3.639	1.709
	11	.482	.843	1.000	-2.377	3.342
	12	-.951	.855	1.000	-3.851	1.950
3	1	-1.790	.676	.428	-4.082	.501
	2	-.482	.468	1.000	-2.069	1.106
	4	.514	.586	1.000	-1.474	2.502
	5	-.212	.701	1.000	-2.588	2.164
	6	-1.810	.775	.738	-4.439	.818
	7	-2.382	.813	.213	-5.140	.376

4	8	-2.133	.827	.496	-4.937	.672
	9	-1.451	.845	.998	-4.317	1.415
	10	-1.447	.802	.993	-4.167	1.272
	11	.000	.905	1.000	-3.069	3.070
	12	-1.432	.908	1.000	-4.510	1.645
	1	-2.305	.735	.116	-4.797	.187
	2	-.996	.622	1.000	-3.107	1.114
	3	-.514	.586	1.000	-2.502	1.474
	5	-.727	.521	1.000	-2.493	1.040
	6	-2.325	.724	.091	-4.779	.129
	7	-2.896(*)	.798	.021	-5.603	-.190
	8	-2.647	.826	.092	-5.446	.152
5	9	-1.965	.837	.727	-4.804	.874
	10	-1.961	.821	.686	-4.744	.822
	11	-.514	.910	1.000	-3.601	2.573
	12	-1.947	.909	.890	-5.029	1.135
	1	-1.578	.759	.924	-4.150	.994
	2	-.270	.690	1.000	-2.608	2.069
	3	.212	.701	1.000	-2.164	2.588
	4	.727	.521	1.000	-1.040	2.493
	6	-1.598	.588	.367	-3.592	.396
	7	-2.170	.666	.078	-4.429	.089
	8	-1.920	.722	.419	-4.369	.528
	9	-1.239	.720	.997	-3.679	1.201
6	10	-1.235	.719	.998	-3.674	1.205
	11	.213	.776	1.000	-2.418	2.844
	12	-1.220	.794	1.000	-3.912	1.472
	1	.020	.766	1.000	-2.576	2.616
	2	1.329	.782	.998	-1.324	3.981
	3	1.810	.775	.738	-.818	4.439
	4	2.325	.724	.091	-.129	4.779
	5	1.598	.588	.367	-.396	3.592
	7	-.572	.384	1.000	-1.873	.729

7	8	-.322	.524	1.000	-2.098	1.454
	9	.359	.576	1.000	-1.593	2.312
	10	.363	.620	1.000	-1.740	2.467
	11	1.811	.770	.722	-.799	4.421
	12	.378	.785	1.000	-2.283	3.039
	1	.592	.795	1.000	-2.103	3.286
	2	1.900	.808	.724	-.841	4.641
	3	2.382	.813	.213	-.376	5.140
	4	2.896(*)	.798	.021	.190	5.603
	5	2.170	.666	.078	-.089	4.429
	6	.572	.384	1.000	-.729	1.873
	8	.249	.407	1.000	-1.131	1.630
8	9	.931	.499	.986	-.761	2.623
	10	.935	.560	.999	-.964	2.834
	11	2.383	.738	.086	-.120	4.885
	12	.950	.758	1.000	-1.621	3.520
	1	.342	.824	1.000	-2.453	3.137
	2	1.651	.838	.965	-1.192	4.493
	3	2.133	.827	.496	-.672	4.937
	4	2.647	.826	.092	-.152	5.446
	5	1.920	.722	.419	-.528	4.369
	6	.322	.524	1.000	-1.454	2.098
	7	-.249	.407	1.000	-1.630	1.131
	9	.682	.369	.989	-.571	1.934
9	10	.685	.475	1.000	-.925	2.296
	11	2.133	.711	.173	-.277	4.543
	12	.700	.766	1.000	-1.896	3.296
	1	-.339	.864	1.000	-3.270	2.591
	2	.969	.852	1.000	-1.919	3.858
	3	1.451	.845	.998	-1.415	4.317
	4	1.965	.837	.727	-.874	4.804
	5	1.239	.720	.997	-1.201	3.679
	6	-.359	.576	1.000	-2.312	1.593

10	7	-.931	.499	.986	-2.623	.761
	8	-.682	.369	.989	-1.934	.571
	10	.004	.441	1.000	-1.491	1.499
	11	1.451	.649	.823	-.748	3.651
	12	.019	.699	1.000	-2.351	2.388
	1	-.343	.802	1.000	-3.062	2.375
	2	.965	.789	1.000	-1.709	3.639
	3	1.447	.802	.993	-1.272	4.167
	4	1.961	.821	.686	-.822	4.744
	5	1.235	.719	.998	-1.205	3.674
	6	-.363	.620	1.000	-2.467	1.740
	7	-.935	.560	.999	-2.834	.964
11	8	-.685	.475	1.000	-2.296	.925
	9	-.004	.441	1.000	-1.499	1.491
	11	1.448	.521	.318	-.320	3.215
	12	.015	.621	1.000	-2.091	2.120
	1	-1.791	.884	.947	-4.788	1.206
	2	-.482	.843	1.000	-3.342	2.377
	3	.000	.905	1.000	-3.070	3.069
	4	.514	.910	1.000	-2.573	3.601
	5	-.213	.776	1.000	-2.844	2.418
	6	-1.811	.770	.722	-4.421	.799
	7	-2.383	.738	.086	-4.885	.120
	8	-2.133	.711	.173	-4.543	.277
12	9	-1.451	.649	.823	-3.651	.748
	10	-1.448	.521	.318	-3.215	.320
	12	-1.433	.511	.296	-3.164	.299
	1	-.358	.864	1.000	-3.288	2.572
	2	.951	.855	1.000	-1.950	3.851
	3	1.432	.908	1.000	-1.645	4.510
	4	1.947	.909	.890	-1.135	5.029
	5	1.220	.794	1.000	-1.472	3.912
	6	-.378	.785	1.000	-3.039	2.283



7	-.950	.758	1.000	-3.520	1.621
8	-.700	.766	1.000	-3.296	1.896
9	-.019	.699	1.000	-2.388	2.351
10	-.015	.621	1.000	-2.120	2.091
11	1.433	.511	.296	-.299	3.164

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.686	1.529	45.678	51.693
Medium	49.779	1.078	47.659	51.900
High	52.192	1.529	49.185	55.199

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	579.454	2	289.727	1.408	.246	.008	.302
Error	72008.656	350	205.739				

The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.094	1.871	.914	-5.582	3.395
	High	-3.507	2.162	.285	-8.695	1.681
Medium	Low	1.094	1.871	.914	-3.395	5.582
	High	-2.413	1.871	.484	-6.902	2.076
High	Low	3.507	2.162	.285	-1.681	8.695
	Medium	2.413	1.871	.484	-2.076	6.902

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Closely Held Shares \* year

Measure: MEASURE\_1

Level of Closely Held Shares	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	49.636	1.510	46.666	52.607
	2	48.489	1.657	45.229	51.748
	3	46.466	1.762	43.000	49.932
	4	45.375	1.812	41.812	48.938
	5	46.034	1.745	42.601	49.467
	6	50.830	1.807	47.276	54.383
	7	51.318	1.925	47.532	55.105
	8	51.034	1.928	47.242	54.826
	9	49.602	1.871	45.922	53.282
	10	49.807	1.832	46.203	53.410
	11	46.625	1.876	42.936	50.314
	12	49.011	1.720	45.628	52.395
Medium	1	50.520	1.065	48.425	52.614

High	2	49.469	1.169	47.171	51.767
	3	48.898	1.242	46.455	51.342
	4	49.412	1.277	46.900	51.925
	5	49.785	1.231	47.365	52.206
	6	49.977	1.274	47.472	52.483
	7	50.158	1.357	47.488	52.828
	8	49.887	1.359	47.213	52.561
	9	49.751	1.319	47.157	52.346
	10	49.808	1.292	47.267	52.349
	11	49.124	1.322	46.523	51.725
	12	50.559	1.213	48.174	52.945
	1	52.716	1.510	49.745	55.687
	2	50.989	1.657	47.729	54.248
	3	52.136	1.762	48.671	55.602
	4	51.170	1.812	47.607	54.734
	5	52.318	1.745	48.885	55.751
	6	52.125	1.807	48.572	55.678
	7	53.170	1.925	49.384	56.957
	8	52.977	1.928	49.185	56.769
	9	52.500	1.871	48.820	56.180
	10	52.227	1.832	48.624	55.831
	11	51.750	1.876	48.061	55.439
	12	52.227	1.720	48.844	55.611

### ***General Linear Model of Level of Closely Held Shares for Product***

#### **Between-Subjects Factors**

		Value Label	N
Level of Closely Held Shares	1	Low	88
	2	Medium	177

3	High	88
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#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	11061.428	1.000	11061.428	11.862	.001	.033	.930
year * chslevel	Lower-bound	6125.845	2.000	3062.922	3.284	.039	.018	.622
Error(year)	Lower-bound	326389.184	350.000	932.541				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	9871.118	1	9871.118	23.380	.000	.063	.998
	Quadratic	636.236	1	636.236	4.020	.046	.011	.516
	Cubic	207.730	1	207.730	2.176	.141	.006	.313
year * chslevel	Linear	5003.708	2	2501.854	5.926	.003	.033	.876
	Quadratic	226.229	2	113.115	.715	.490	.004	.171
	Cubic	454.905	2	227.452	2.383	.094	.013	.480
Error(year)	Linear	147771.050	350	422.203				
	Quadratic	55399.034	350	158.283				
	Cubic	33407.966	350	95.451				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	41764.680	2	20882.340	9.303	.000	.050	.977
Error	785630.886	350	2244.660				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.829	.803	50.249	53.410
2	51.799	.856	50.115	53.483
3	51.912	.842	50.255	53.568
4	50.785	.879	49.056	52.514
5	50.748	.848	49.081	52.416
6	50.184	.870	48.473	51.895
7	50.028	.919	48.221	51.835
8	49.669	.938	47.824	51.513
9	49.346	.950	47.479	51.214
10	49.066	.971	47.156	50.977
11	47.353	1.018	45.350	49.356
12	46.110	1.037	44.072	48.149

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.030	.537	1.000	-1.790	1.850
	3	-.082	.610	1.000	-2.150	1.986
	4	1.044	.725	1.000	-1.415	3.504
	5	1.081	.780	1.000	-1.564	3.726
	6	1.646	.823	.956	-1.145	4.437
	7	1.801	.891	.949	-1.220	4.823
	8	2.161	.867	.583	-.779	5.101
	9	2.483	.890	.309	-.536	5.503
	10	2.763	.882	.117	-.228	5.754
	11	4.476(*)	.981	.000	1.151	7.801
	12	5.719(*)	1.004	.000	2.314	9.124
2	1	-.030	.537	1.000	-1.850	1.790
	3	-.112	.410	1.000	-1.502	1.278
	4	1.014	.638	1.000	-1.149	3.178
	5	1.051	.728	1.000	-1.419	3.521
	6	1.616	.775	.922	-1.013	4.244
	7	1.771	.850	.922	-1.110	4.653
	8	2.131	.842	.545	-.726	4.987
	9	2.453	.870	.285	-.496	5.402
	10	2.733	.879	.125	-.247	5.713
	11	4.446(*)	.976	.000	1.136	7.756
	12	5.689(*)	1.013	.000	2.253	9.124
3	1	.082	.610	1.000	-1.986	2.150
	2	.112	.410	1.000	-1.278	1.502
	4	1.127	.525	.888	-.654	2.907
	5	1.163	.640	.992	-1.005	3.332
	6	1.728	.741	.742	-.785	4.240
	7	1.883	.825	.786	-.914	4.681
	8	2.243	.811	.327	-.507	4.993

4	9	2.566	.855	.174	-.334	5.465
	10	2.845	.882	.086	-.144	5.834
	11	4.558(*)	.961	.000	1.299	7.817
	12	5.801(*)	.988	.000	2.450	9.152
	1	-1.044	.725	1.000	-3.504	1.415
	2	-1.014	.638	1.000	-3.178	1.149
	3	-1.127	.525	.888	-2.907	.654
	5	.037	.486	1.000	-1.610	1.684
	6	.601	.643	1.000	-1.577	2.780
	7	.757	.732	1.000	-1.726	3.240
	8	1.116	.762	1.000	-1.466	3.698
	9	1.439	.818	.996	-1.336	4.214
5	10	1.719	.843	.942	-1.139	4.576
	11	3.432(*)	.930	.017	.279	6.584
	12	4.675(*)	.953	.000	1.443	7.906
	1	-1.081	.780	1.000	-3.726	1.564
	2	-1.051	.728	1.000	-3.521	1.419
	3	-1.163	.640	.992	-3.332	1.005
	4	-.037	.486	1.000	-1.684	1.610
	6	.564	.467	1.000	-1.020	2.149
	7	.720	.599	1.000	-1.310	2.750
	8	1.079	.648	.999	-1.116	3.275
	9	1.402	.722	.972	-1.046	3.851
	10	1.682	.750	.818	-.860	4.224
6	11	3.395(*)	.823	.003	.604	6.185
	12	4.638(*)	.852	.000	1.748	7.528
	1	-1.646	.823	.956	-4.437	1.145
	2	-1.616	.775	.922	-4.244	1.013
	3	-1.728	.741	.742	-4.240	.785
	4	-.601	.643	1.000	-2.780	1.577
	5	-.564	.467	1.000	-2.149	1.020
	7	.156	.397	1.000	-1.190	1.501
	8	.515	.498	1.000	-1.172	2.203

7	9	.838	.591	1.000	-1.164	2.840
	10	1.117	.624	.994	-.997	3.231
	11	2.830(*)	.737	.010	.332	5.328
	12	4.073(*)	.761	.000	1.492	6.654
	1	-1.801	.891	.949	-4.823	1.220
	2	-1.771	.850	.922	-4.653	1.110
	3	-1.883	.825	.786	-4.681	.914
	4	-.757	.732	1.000	-3.240	1.726
	5	-.720	.599	1.000	-2.750	1.310
	6	-.156	.397	1.000	-1.501	1.190
	8	.359	.338	1.000	-.788	1.507
	9	.682	.500	1.000	-1.015	2.379
8	10	.962	.594	.999	-1.053	2.976
	11	2.675(*)	.710	.013	.267	5.082
	12	3.918(*)	.743	.000	1.400	6.435
	1	-2.161	.867	.583	-5.101	.779
	2	-2.131	.842	.545	-4.987	.726
	3	-2.243	.811	.327	-4.993	.507
	4	-1.116	.762	1.000	-3.698	1.466
	5	-1.079	.648	.999	-3.275	1.116
	6	-.515	.498	1.000	-2.203	1.172
	7	-.359	.338	1.000	-1.507	.788
	9	.323	.378	1.000	-.958	1.603
	10	.602	.511	1.000	-1.130	2.335
9	11	2.315(*)	.652	.029	.103	4.527
	12	3.558(*)	.701	.000	1.181	5.935
	1	-2.483	.890	.309	-5.503	.536
	2	-2.453	.870	.285	-5.402	.496
	3	-2.566	.855	.174	-5.465	.334
	4	-1.439	.818	.996	-4.214	1.336
	5	-1.402	.722	.972	-3.851	1.046
	6	-.838	.591	1.000	-2.840	1.164
	7	-.682	.500	1.000	-2.379	1.015



10	8	-.323	.378	1.000	-1.603	.958
	10	.280	.364	1.000	-.955	1.514
	11	1.993(*)	.527	.012	.204	3.781
	12	3.236(*)	.605	.000	1.185	5.286
	1	-2.763	.882	.117	-5.754	.228
	2	-2.733	.879	.125	-5.713	.247
	3	-2.845	.882	.086	-5.834	.144
	4	-1.719	.843	.942	-4.576	1.139
	5	-1.682	.750	.818	-4.224	.860
	6	-1.117	.624	.994	-3.231	.997
11	7	-.962	.594	.999	-2.976	1.053
	8	-.602	.511	1.000	-2.335	1.130
	9	-.280	.364	1.000	-1.514	.955
	11	1.713(*)	.418	.003	.297	3.129
	12	2.956(*)	.520	.000	1.194	4.718
	1	-4.476(*)	.981	.000	-7.801	-1.151
	2	-4.446(*)	.976	.000	-7.756	-1.136
	3	-4.558(*)	.961	.000	-7.817	-1.299
	4	-3.432(*)	.930	.017	-6.584	-.279
	5	-3.395(*)	.823	.003	-6.185	-.604
12	6	-2.830(*)	.737	.010	-5.328	-.332
	7	-2.675(*)	.710	.013	-5.082	-.267
	8	-2.315(*)	.652	.029	-4.527	-.103
	9	-1.993(*)	.527	.012	-3.781	-.204
	10	-1.713(*)	.418	.003	-3.129	-.297
	12	1.243(*)	.338	.018	.098	2.388
	1	-5.719(*)	1.004	.000	-9.124	-2.314
	2	-5.689(*)	1.013	.000	-9.124	-2.253
	3	-5.801(*)	.988	.000	-9.152	-2.450
	4	-4.675(*)	.953	.000	-7.906	-1.443
	5	-4.638(*)	.852	.000	-7.528	-1.748
	6	-4.073(*)	.761	.000	-6.654	-1.492
	7	-3.918(*)	.743	.000	-6.435	-1.400

8	-3.558(*)	.701	.000	-5.935	-1.181
9	-3.236(*)	.605	.000	-5.286	-1.185
10	-2.956(*)	.520	.000	-4.718	-1.194
11	-1.243(*)	.338	.018	-2.388	-.098

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	45.384	1.458	42.517	48.252
Medium	50.050	1.028	48.029	52.072
High	54.273	1.458	51.405	57.140

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3480.390	2	1740.195	9.303	.000	.050	.977
Error	65469.241	350	187.055				

The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-4.666(*)	1.784	.028	-8.946	-.386
	High	-8.888(*)	2.062	.000	-13.835	-3.941
Medium	Low	4.666(*)	1.784	.028	.386	8.946
	High	-4.222	1.784	.054	-8.502	.058
High	Low	8.888(*)	2.062	.000	3.941	13.835
	Medium	4.222	1.784	.054	-.058	8.502

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Level of Closely Held Shares \* year

Measure: MEASURE\_1

Level of Closely Held Shares	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	48.557	1.525	45.557	51.557
	2	47.909	1.626	44.712	51.106
	3	48.250	1.599	45.105	51.395
	4	45.739	1.669	42.455	49.022
	5	46.045	1.610	42.880	49.211
	6	46.261	1.652	43.013	49.510
	7	45.943	1.744	42.512	49.374
	8	44.864	1.780	41.362	48.365
	9	44.761	1.803	41.216	48.307
	10	43.977	1.844	40.350	47.604
	11	41.807	1.933	38.004	45.609
	12	40.500	1.968	36.630	44.370

Medium	1	53.045	1.075	50.930	55.160
	2	53.932	1.146	51.678	56.186
	3	53.712	1.128	51.494	55.929
	4	52.514	1.177	50.199	54.829
	5	51.006	1.135	48.774	53.238
	6	49.983	1.165	47.692	52.274
	7	49.175	1.230	46.756	51.594
	8	48.960	1.255	46.491	51.429
	9	48.311	1.271	45.811	50.811
	10	47.927	1.300	45.369	50.484
	11	46.367	1.363	43.686	49.048
	12	45.672	1.387	42.944	48.401
High	1	53.886	1.525	50.887	56.886
	2	53.557	1.626	50.360	56.754
	3	53.773	1.599	50.628	56.918
	4	54.102	1.669	50.819	57.386
	5	55.193	1.610	52.028	58.359
	6	54.307	1.652	51.058	57.555
	7	54.966	1.744	51.535	58.397
	8	55.182	1.780	51.680	58.683
	9	54.966	1.803	51.421	58.511
	10	55.295	1.844	51.668	58.923
	11	53.886	1.933	50.084	57.689
	12	52.159	1.968	48.289	56.029

### ***General Linear Model of Level of Closely Held Shares for Corporate Governance***

#### **Between-Subjects Factors**

	Value Label	N
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Close Shares	1	Low	88
Level	2	Medium	177
	3	High	88

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	46644.008	1.000	46644.008	32.479	.000	.085	1.000
year * chslevel	Lower-bound	13984.468	2.000	6992.234	4.869	.008	.027	.801
Error(year)	Lower-bound	502644.942	350.000	1436.128				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	43435.228	1	43435.228	94.824	.000	.213	1.000
	Quadratic	182.014	1	182.014	.850	.357	.002	.151
	Cubic	539.064	1	539.064	3.536	.061	.010	.466
year * chslevel	Linear	9300.338	2	4650.169	10.152	.000	.055	.986
	Quadratic	3082.168	2	1541.084	7.199	.001	.040	.933
	Cubic	46.776	2	23.388	.153	.858	.001	.074
Error(year)	Linear	160321.259	350	458.061				
	Quadratic	74925.499	350	214.073				
	Cubic	53359.826	350	152.457				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	60505.520	2	30252.760	19.521	.000	.100	1.000
Error	542403.416	350	1549.724				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.485	.344	55.808	57.162
2	55.748	.665	54.440	57.056
3	53.659	.735	52.214	55.104
4	52.112	.873	50.395	53.829
5	49.678	.908	47.893	51.463
6	51.871	.906	50.088	53.653
7	50.811	.982	48.880	52.742
8	48.157	1.028	46.135	50.179
9	48.942	.984	47.007	50.877
10	47.220	.992	45.270	49.170
11	45.892	.983	43.958	47.826
12	45.155	.983	43.220	47.089

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.736	.617	1.000	-1.355	2.828
	3	2.825(*)	.729	.008	.354	5.297
	4	4.373(*)	.897	.000	1.332	7.413
	5	6.807(*)	.939	.000	3.624	9.989
	6	4.614(*)	.947	.000	1.404	7.824
	7	5.673(*)	1.031	.000	2.177	9.170
	8	8.328(*)	1.072	.000	4.693	11.962
	9	7.542(*)	1.028	.000	4.056	11.029
	10	9.265(*)	1.054	.000	5.690	12.840
	11	10.593(*)	1.049	.000	7.037	14.148
	12	11.330(*)	1.044	.000	7.790	14.871
2	1	-.736	.617	1.000	-2.828	1.355
	3	2.089(*)	.579	.023	.126	4.052
	4	3.636(*)	.782	.000	.985	6.288
	5	6.070(*)	.844	.000	3.208	8.933
	6	3.878(*)	.859	.001	.964	6.791
	7	4.937(*)	.966	.000	1.663	8.212
	8	7.591(*)	.996	.000	4.215	10.968
	9	6.806(*)	1.012	.000	3.373	10.239
	10	8.528(*)	1.062	.000	4.927	12.130
	11	9.856(*)	1.044	.000	6.317	13.396
	12	10.594(*)	1.048	.000	7.041	14.146
3	1	-2.825(*)	.729	.008	-5.297	-.354
	2	-2.089(*)	.579	.023	-4.052	-.126
	4	1.547	.740	.918	-.962	4.056
	5	3.981(*)	.807	.000	1.245	6.718
	6	1.789	.878	.942	-1.187	4.764
	7	2.848	1.005	.276	-.560	6.256
	8	5.502(*)	1.016	.000	2.058	8.946

4	9	4.717(*)	1.051	.001	1.153	8.281
	10	6.439(*)	1.104	.000	2.695	10.184
	11	7.767(*)	1.073	.000	4.129	11.406
	12	8.505(*)	1.085	.000	4.825	12.185
	1	-4.373(*)	.897	.000	-7.413	-1.332
	2	-3.636(*)	.782	.000	-6.288	-.985
	3	-1.547	.740	.918	-4.056	.962
	5	2.434(*)	.624	.007	.320	4.548
	6	.241	.843	1.000	-2.617	3.100
	7	1.301	.928	1.000	-1.845	4.447
	8	3.955(*)	.962	.003	.692	7.218
	9	3.170	1.012	.117	-.261	6.601
5	10	4.892(*)	1.025	.000	1.416	8.368
	11	6.220(*)	.976	.000	2.910	9.530
	12	6.958(*)	.978	.000	3.643	10.272
	1	-6.807(*)	.939	.000	-9.989	-3.624
	2	-6.070(*)	.844	.000	-8.933	-3.208
	3	-3.981(*)	.807	.000	-6.718	-1.245
	4	-2.434(*)	.624	.007	-4.548	-.320
	6	-2.193	.739	.190	-4.697	.312
	7	-1.133	.830	1.000	-3.948	1.682
	8	1.521	.863	.996	-1.407	4.448
	9	.736	.920	1.000	-2.384	3.856
	10	2.458	.949	.484	-.758	5.675
6	11	3.786(*)	.905	.002	.718	6.855
	12	4.524(*)	.913	.000	1.428	7.620
	1	-4.614(*)	.947	.000	-7.824	-1.404
	2	-3.878(*)	.859	.001	-6.791	-.964
	3	-1.789	.878	.942	-4.764	1.187
	4	-.241	.843	1.000	-3.100	2.617
	5	2.193	.739	.190	-.312	4.697
	7	1.059	.708	1.000	-1.342	3.460
	8	3.713(*)	.870	.002	.764	6.663



7	9	2.928	.962	.153	-.334	6.190
	10	4.651(*)	.972	.000	1.357	7.945
	11	5.979(*)	.965	.000	2.707	9.250
	12	6.716(*)	.969	.000	3.431	10.002
	1	-5.673(*)	1.031	.000	-9.170	-2.177
	2	-4.937(*)	.966	.000	-8.212	-1.663
	3	-2.848	1.005	.276	-6.256	.560
	4	-1.301	.928	1.000	-4.447	1.845
	5	1.133	.830	1.000	-1.682	3.948
	6	-1.059	.708	1.000	-3.460	1.342
	8	2.654(*)	.754	.032	.099	5.210
	9	1.869	.889	.913	-1.147	4.885
8	10	3.591(*)	.950	.012	.371	6.812
	11	4.919(*)	.913	.000	1.824	8.014
	12	5.657(*)	.926	.000	2.518	8.796
	1	-8.328(*)	1.072	.000	-11.962	-4.693
	2	-7.591(*)	.996	.000	-10.968	-4.215
	3	-5.502(*)	1.016	.000	-8.946	-2.058
	4	-3.955(*)	.962	.003	-7.218	-.692
	5	-1.521	.863	.996	-4.448	1.407
	6	-3.713(*)	.870	.002	-6.663	-.764
	7	-2.654(*)	.754	.032	-5.210	-.099
	9	-.785	.708	1.000	-3.187	1.617
	10	.937	.869	1.000	-2.008	3.883
9	11	2.265	.881	.503	-.721	5.252
	12	3.003	.901	.061	-.052	6.058
	1	-7.542(*)	1.028	.000	-11.029	-4.056
	2	-6.806(*)	1.012	.000	-10.239	-3.373
	3	-4.717(*)	1.051	.001	-8.281	-1.153
	4	-3.170	1.012	.117	-6.601	.261
	5	-.736	.920	1.000	-3.856	2.384
	6	-2.928	.962	.153	-6.190	.334
	7	-1.869	.889	.913	-4.885	1.147

10	8	.785	.708	1.000	-1.617	3.187
	10	1.722	.738	.741	-.782	4.226
	11	3.050(*)	.823	.016	.261	5.840
	12	3.788(*)	.866	.001	.850	6.725
	1	-9.265(*)	1.054	.000	-12.840	-5.690
	2	-8.528(*)	1.062	.000	-12.130	-4.927
	3	-6.439(*)	1.104	.000	-10.184	-2.695
	4	-4.892(*)	1.025	.000	-8.368	-1.416
	5	-2.458	.949	.484	-5.675	.758
	6	-4.651(*)	.972	.000	-7.945	-1.357
11	7	-3.591(*)	.950	.012	-6.812	-.371
	8	-.937	.869	1.000	-3.883	2.008
	9	-1.722	.738	.741	-4.226	.782
	11	1.328	.583	.791	-.650	3.306
	12	2.065	.667	.130	-.195	4.326
	1	-10.593(*)	1.049	.000	-14.148	-7.037
	2	-9.856(*)	1.044	.000	-13.396	-6.317
	3	-7.767(*)	1.073	.000	-11.406	-4.129
	4	-6.220(*)	.976	.000	-9.530	-2.910
	5	-3.786(*)	.905	.002	-6.855	-.718
12	6	-5.979(*)	.965	.000	-9.250	-2.707
	7	-4.919(*)	.913	.000	-8.014	-1.824
	8	-2.265	.881	.503	-5.252	.721
	9	-3.050(*)	.823	.016	-5.840	-.261
	10	-1.328	.583	.791	-3.306	.650
	12	.738	.382	.975	-.557	2.032
	1	-11.330(*)	1.044	.000	-14.871	-7.790
	2	-10.594(*)	1.048	.000	-14.146	-7.041
	3	-8.505(*)	1.085	.000	-12.185	-4.825
	4	-6.958(*)	.978	.000	-10.272	-3.643
	5	-4.524(*)	.913	.000	-7.620	-1.428
	6	-6.716(*)	.969	.000	-10.002	-3.431
	7	-5.657(*)	.926	.000	-8.796	-2.518

8	-3.003	.901	.061	-6.058	.052
9	-3.788(*)	.866	.001	-6.725	-.850
10	-2.065	.667	.130	-4.326	.195
11	-.738	.382	.975	-2.032	.557

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Level of Closely Held Shares

### Estimates

Measure: MEASURE\_1

Level of Closely Held Shares	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	45.834	1.211	43.452	48.217
Medium	49.337	.854	47.657	51.017
High	56.261	1.211	53.879	58.644

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	5042.127	2	2521.063	19.521	.000	.100	1.000
Error	45200.285	350	129.144				

The F tests the effect of Level of Closely Held Shares. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Level of Closely Held Shares	(J) Level of Closely Held Shares	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-3.503	1.482	.055	-7.059	.054
	High	-10.427(*)	1.713	.000	-14.537	-6.317
Medium	Low	3.503	1.482	.055	-.054	7.059
	High	-6.924(*)	1.482	.000	-10.481	-3.368
High	Low	10.427(*)	1.713	.000	6.317	14.537
	Medium	6.924(*)	1.482	.000	3.368	10.481

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Close Shares Level \* year

#### Estimates

Measure: MEASURE\_1

Close Shares Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.409	.654	55.124	57.695
	2	54.784	1.263	52.301	57.267
	3	50.057	1.395	47.313	52.800
	4	48.875	1.658	45.615	52.135
	5	45.034	1.723	41.645	48.423
	6	47.398	1.720	44.014	50.781
	7	46.068	1.864	42.403	49.734
	8	42.966	1.952	39.127	46.804
	9	41.489	1.868	37.815	45.162
	10	40.159	1.882	36.457	43.861
	11	38.977	1.867	35.306	42.649

Medium	12	37.795	1.867	34.123	41.467
	1	56.045	.461	55.139	56.952
	2	54.870	.890	53.119	56.621
	3	52.887	.984	50.953	54.821
	4	50.757	1.169	48.458	53.056
	5	48.921	1.215	46.531	51.311
	6	48.260	1.213	45.874	50.646
	7	48.627	1.314	46.042	51.212
	8	45.983	1.376	43.277	48.690
	9	47.452	1.317	44.862	50.042
	10	46.864	1.327	44.254	49.475
	11	45.983	1.316	43.394	48.572
High	12	45.395	1.316	42.806	47.985
	1	57.000	.654	55.714	58.286
	2	57.591	1.263	55.108	60.074
	3	58.034	1.395	55.291	60.778
	4	56.705	1.658	53.444	59.965
	5	55.080	1.723	51.690	58.469
	6	59.955	1.720	56.571	63.338
	7	57.739	1.864	54.073	61.404
	8	55.523	1.952	51.684	59.361
	9	57.886	1.868	54.213	61.560
	10	54.636	1.882	50.934	58.339
	11	52.716	1.867	49.044	56.388
	12	52.273	1.867	48.601	55.945

#### Multivariate Tests

Close Shares Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.242	9.886(b)	11.000	340.000	.000	.242	1.000
	Wilks' lambda	.758	9.886(b)	11.000	340.000	.000	.242	1.000

Medium	Hotelling's trace	.320	9.886(b)	11.000	340.000	.000	.242	1.000
	Roy's largest root	.320	9.886(b)	11.000	340.000	.000	.242	1.000
	Pillai's trace	.181	6.809(b)	11.000	340.000	.000	.181	1.000
	Wilks' lambda	.819	6.809(b)	11.000	340.000	.000	.181	1.000
	Hotelling's trace	.220	6.809(b)	11.000	340.000	.000	.181	1.000
High	Roy's largest root	.220	6.809(b)	11.000	340.000	.000	.181	1.000
	Pillai's trace	.079	2.659(b)	11.000	340.000	.003	.079	.973
	Wilks' lambda	.921	2.659(b)	11.000	340.000	.003	.079	.973
	Hotelling's trace	.086	2.659(b)	11.000	340.000	.003	.079	.973
	Roy's largest root	.086	2.659(b)	11.000	340.000	.003	.079	.973

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

#### Pairwise Comparisons

Measure: MEASURE\_1

Close Shares Level (I) year (J) year			Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
Low	1	2	1.625	1.171	1.000	-2.346	5.596
		3	6.352(*)	1.384	.000	1.660	11.044
		4	7.534(*)	1.702	.001	1.762	13.306
		5	11.375(*)	1.782	.000	5.334	17.416
		6	9.011(*)	1.797	.000	2.917	15.105
		7	10.341(*)	1.958	.000	3.703	16.978
		8	13.443(*)	2.035	.000	6.543	20.343
		9	14.920(*)	1.952	.000	8.302	21.539
		10	16.250(*)	2.002	.000	9.463	23.037
		11	17.432(*)	1.991	.000	10.682	24.181
		12	18.614(*)	1.982	.000	11.892	25.335
		2	-1.625	1.171	1.000	-5.596	2.346
	2	3	4.727(*)	1.099	.001	1.001	8.454
		4	5.909(*)	1.485	.006	.875	10.943

3	5	9.750(*)	1.603	.000	4.316	15.184
	6	7.386(*)	1.631	.001	1.856	12.917
	7	8.716(*)	1.833	.000	2.499	14.932
	8	11.818(*)	1.890	.000	5.408	18.228
	9	13.295(*)	1.922	.000	6.778	19.812
	10	14.625(*)	2.016	.000	7.788	21.462
	11	15.807(*)	1.982	.000	9.087	22.527
	12	16.989(*)	1.989	.000	10.245	23.733
	1	-6.352(*)	1.384	.000	-11.044	-1.660
	2	-4.727(*)	1.099	.001	-8.454	-1.001
	4	1.182	1.405	1.000	-3.581	5.945
	5	5.023	1.532	.073	-.172	10.218
4	6	2.659	1.666	1.000	-2.990	8.309
	7	3.989	1.908	.919	-2.482	10.459
	8	7.091(*)	1.928	.018	.553	13.629
	9	8.568(*)	1.996	.002	1.802	15.335
	10	9.898(*)	2.096	.000	2.789	17.006
	11	11.080(*)	2.037	.000	4.172	17.987
	12	12.261(*)	2.060	.000	5.275	19.247
	1	-7.534(*)	1.702	.001	-13.306	-1.762
	2	-5.909(*)	1.485	.006	-10.943	-.875
	3	-1.182	1.405	1.000	-5.945	3.581
	5	3.841	1.184	.082	-.173	7.855
	6	1.477	1.600	1.000	-3.949	6.904
5	7	2.807	1.762	1.000	-3.166	8.780
	8	5.909	1.827	.084	-.285	12.103
	9	7.386(*)	1.921	.009	.873	13.899
	10	8.716(*)	1.946	.001	2.117	15.315
	11	9.898(*)	1.853	.000	3.615	16.181
	12	11.080(*)	1.856	.000	4.787	17.372
	1	-11.375(*)	1.782	.000	-17.416	-5.334
	2	-9.750(*)	1.603	.000	-15.184	-4.316
	3	-5.023	1.532	.073	-10.218	.172

6	4	-3.841	1.184	.082	-7.855	.173
	6	-2.364	1.402	.998	-7.118	2.390
	7	-1.034	1.576	1.000	-6.378	4.310
	8	2.068	1.639	1.000	-3.489	7.626
	9	3.545	1.747	.946	-2.377	9.468
	10	4.875	1.801	.376	-1.231	10.981
	11	6.057(*)	1.718	.031	.231	11.882
	12	7.239(*)	1.733	.002	1.361	13.116
	1	-9.011(*)	1.797	.000	-15.105	-2.917
	2	-7.386(*)	1.631	.001	-12.917	-1.856
	3	-2.659	1.666	1.000	-8.309	2.990
	4	-1.477	1.600	1.000	-6.904	3.949
7	5	2.364	1.402	.998	-2.390	7.118
	7	1.330	1.344	1.000	-3.229	5.888
	8	4.432	1.652	.397	-1.168	10.032
	9	5.909	1.826	.084	-.283	12.102
	10	7.239(*)	1.844	.007	.985	13.492
	11	8.420(*)	1.832	.000	2.210	14.631
	12	9.602(*)	1.839	.000	3.365	15.839
	1	-10.341(*)	1.958	.000	-16.978	-3.703
	2	-8.716(*)	1.833	.000	-14.932	-2.499
	3	-3.989	1.908	.919	-10.459	2.482
	4	-2.807	1.762	1.000	-8.780	3.166
	5	1.034	1.576	1.000	-4.310	6.378
8	6	-1.330	1.344	1.000	-5.888	3.229
	8	3.102	1.431	.873	-1.749	7.954
	9	4.580	1.689	.372	-1.146	10.305
	10	5.909	1.803	.073	-.205	12.023
	11	7.091(*)	1.733	.004	1.215	12.967
	12	8.273(*)	1.757	.000	2.314	14.231
	1	-13.443(*)	2.035	.000	-20.343	-6.543
	2	-11.818(*)	1.890	.000	-18.228	-5.408
	3	-7.091(*)	1.928	.018	-13.629	-.553



9	4	-5.909	1.827	.084	-12.103	.285
	5	-2.068	1.639	1.000	-7.626	3.489
	6	-4.432	1.652	.397	-10.032	1.168
	7	-3.102	1.431	.873	-7.954	1.749
	9	1.477	1.345	1.000	-3.083	6.038
	10	2.807	1.649	.998	-2.785	8.399
	11	3.989	1.672	.690	-1.681	9.659
	12	5.170	1.710	.163	-.629	10.970
	1	-14.920(*)	1.952	.000	-21.539	-8.302
	2	-13.295(*)	1.922	.000	-19.812	-6.778
	3	-8.568(*)	1.996	.002	-15.335	-1.802
	4	-7.386(*)	1.921	.009	-13.899	-.873
10	5	-3.545	1.747	.946	-9.468	2.377
	6	-5.909	1.826	.084	-12.102	.283
	7	-4.580	1.689	.372	-10.305	1.146
	8	-1.477	1.345	1.000	-6.038	3.083
	10	1.330	1.402	1.000	-3.424	6.083
	11	2.511	1.562	.999	-2.784	7.807
	12	3.693	1.645	.817	-1.884	9.270
	1	-16.250(*)	2.002	.000	-23.037	-9.463
	2	-14.625(*)	2.016	.000	-21.462	-7.788
	3	-9.898(*)	2.096	.000	-17.006	-2.789
	4	-8.716(*)	1.946	.001	-15.315	-2.117
	5	-4.875	1.801	.376	-10.981	1.231
11	6	-7.239(*)	1.844	.007	-13.492	-.985
	7	-5.909	1.803	.073	-12.023	.205
	8	-2.807	1.649	.998	-8.399	2.785
	9	-1.330	1.402	1.000	-6.083	3.424
	11	1.182	1.108	1.000	-2.573	4.937
	12	2.364	1.266	.986	-1.928	6.655
	1	-17.432(*)	1.991	.000	-24.181	-10.682
	2	-15.807(*)	1.982	.000	-22.527	-9.087
	3	-11.080(*)	2.037	.000	-17.987	-4.172

Medium	12	4	-9.898(*)	1.853	.000	-16.181	-3.615
		5	-6.057(*)	1.718	.031	-11.882	-.231
		6	-8.420(*)	1.832	.000	-14.631	-2.210
		7	-7.091(*)	1.733	.004	-12.967	-1.215
		8	-3.989	1.672	.690	-9.659	1.681
		9	-2.511	1.562	.999	-7.807	2.784
		10	-1.182	1.108	1.000	-4.937	2.573
		12	1.182	.725	.999	-1.277	3.640
		1	-18.614(*)	1.982	.000	-25.335	-11.892
		2	-16.989(*)	1.989	.000	-23.733	-10.245
		3	-12.261(*)	2.060	.000	-19.247	-5.275
		4	-11.080(*)	1.856	.000	-17.372	-4.787
	1	5	-7.239(*)	1.733	.002	-13.116	-1.361
		6	-9.602(*)	1.839	.000	-15.839	-3.365
		7	-8.273(*)	1.757	.000	-14.231	-2.314
		8	-5.170	1.710	.163	-10.970	.629
		9	-3.693	1.645	.817	-9.270	1.884
		10	-2.364	1.266	.986	-6.655	1.928
		11	-1.182	.725	.999	-3.640	1.277
		2	1.175	.826	1.000	-1.625	3.975
		3	3.158	.976	.084	-.150	6.467
		4	5.288(*)	1.200	.001	1.218	9.358
		5	7.124(*)	1.256	.000	2.865	11.384
		6	7.785(*)	1.267	.000	3.488	12.082
	2	7	7.418(*)	1.380	.000	2.738	12.098
		8	10.062(*)	1.435	.000	5.197	14.927
		9	8.593(*)	1.376	.000	3.927	13.260
		10	9.181(*)	1.411	.000	4.395	13.967
		11	10.062(*)	1.404	.000	5.303	14.821
		12	10.650(*)	1.398	.000	5.910	15.389
		1	-1.175	.826	1.000	-3.975	1.625
		3	1.983	.775	.516	-.645	4.611
		4	4.113(*)	1.047	.007	.564	7.662

3	5	5.949(*)	1.130	.000	2.117	9.781
	6	6.610(*)	1.150	.000	2.710	10.510
	7	6.243(*)	1.293	.000	1.860	10.626
	8	8.887(*)	1.333	.000	4.367	13.407
	9	7.418(*)	1.355	.000	2.823	12.013
	10	8.006(*)	1.422	.000	3.185	12.826
	11	8.887(*)	1.397	.000	4.149	13.625
	12	9.475(*)	1.402	.000	4.719	14.230
	1	-3.158	.976	.084	-6.467	.150
	2	-1.983	.775	.516	-4.611	.645
	4	2.130	.990	.885	-1.228	5.488
	5	3.966(*)	1.080	.018	.303	7.629
4	6	4.627(*)	1.175	.007	.644	8.611
	7	4.260	1.346	.105	-.302	8.822
	8	6.904(*)	1.360	.000	2.294	11.514
	9	5.435(*)	1.407	.009	.664	10.206
	10	6.023(*)	1.478	.004	1.010	11.035
	11	6.904(*)	1.437	.000	2.033	11.775
	12	7.492(*)	1.453	.000	2.566	12.417
	1	-5.288(*)	1.200	.001	-9.358	-1.218
	2	-4.113(*)	1.047	.007	-7.662	-.564
	3	-2.130	.990	.885	-5.488	1.228
	5	1.836	.835	.851	-.994	4.666
	6	2.497	1.129	.842	-1.329	6.324
5	7	2.130	1.242	.998	-2.082	6.342
	8	4.774(*)	1.288	.016	.406	9.142
	9	3.305	1.354	.635	-1.287	7.897
	10	3.893	1.372	.273	-.760	8.546
	11	4.774(*)	1.307	.019	.344	9.204
	12	5.362(*)	1.309	.003	.924	9.799
	1	-7.124(*)	1.256	.000	-11.384	-2.865
	2	-5.949(*)	1.130	.000	-9.781	-2.117
	3	-3.966(*)	1.080	.018	-7.629	-.303

6	4	-1.836	.835	.851	-4.666	.994
	6	.661	.989	1.000	-2.691	4.013
	7	.294	1.111	1.000	-3.474	4.062
	8	2.938	1.156	.532	-.981	6.857
	9	1.469	1.232	1.000	-2.707	5.645
	10	2.056	1.270	.999	-2.249	6.362
	11	2.938	1.211	.651	-1.170	7.045
	12	3.525	1.222	.241	-.619	7.670
	1	-7.785(*)	1.267	.000	-12.082	-3.488
	2	-6.610(*)	1.150	.000	-10.510	-2.710
	3	-4.627(*)	1.175	.007	-8.611	-.644
	4	-2.497	1.129	.842	-6.324	1.329
7	5	-.661	.989	1.000	-4.013	2.691
	7	-.367	.948	1.000	-3.581	2.847
	8	2.277	1.165	.969	-1.672	6.225
	9	.808	1.288	1.000	-3.559	5.174
	10	1.395	1.300	1.000	-3.014	5.805
	11	2.277	1.291	.996	-2.102	6.656
	12	2.864	1.297	.845	-1.533	7.262
	1	-7.418(*)	1.380	.000	-12.098	-2.738
	2	-6.243(*)	1.293	.000	-10.626	-1.860
	3	-4.260	1.346	.105	-8.822	.302
	4	-2.130	1.242	.998	-6.342	2.082
	5	-.294	1.111	1.000	-4.062	3.474
8	6	.367	.948	1.000	-2.847	3.581
	8	2.644	1.009	.455	-.777	6.065
	9	1.175	1.191	1.000	-2.862	5.212
	10	1.763	1.271	1.000	-2.548	6.074
	11	2.644	1.222	.876	-1.499	6.787
	12	3.232	1.239	.467	-.970	7.433
	1	-10.062(*)	1.435	.000	-14.927	-5.197
	2	-8.887(*)	1.333	.000	-13.407	-4.367
	3	-6.904(*)	1.360	.000	-11.514	-2.294

		4	-4.774(*)	1.288	.016	-9.142	-.406
		5	-2.938	1.156	.532	-6.857	.981
		6	-2.277	1.165	.969	-6.225	1.672
		7	-2.644	1.009	.455	-6.065	.777
		9	-1.469	.948	1.000	-4.685	1.747
		10	-.881	1.163	1.000	-4.824	3.061
		11	.000	1.179	1.000	-3.998	3.998
		12	.588	1.206	1.000	-3.502	4.677
	9	1	-8.593(*)	1.376	.000	-13.260	-3.927
		2	-7.418(*)	1.355	.000	-12.013	-2.823
		3	-5.435(*)	1.407	.009	-10.206	-.664
		4	-3.305	1.354	.635	-7.897	1.287
		5	-1.469	1.232	1.000	-5.645	2.707
		6	-.808	1.288	1.000	-5.174	3.559
		7	-1.175	1.191	1.000	-5.212	2.862
		8	1.469	.948	1.000	-1.747	4.685
		10	.588	.989	1.000	-2.764	3.939
		11	1.469	1.101	1.000	-2.265	5.203
		12	2.056	1.160	.995	-1.876	5.989
	10	1	-9.181(*)	1.411	.000	-13.967	-4.395
		2	-8.006(*)	1.422	.000	-12.826	-3.185
		3	-6.023(*)	1.478	.004	-11.035	-1.010
		4	-3.893	1.372	.273	-8.546	.760
		5	-2.056	1.270	.999	-6.362	2.249
		6	-1.395	1.300	1.000	-5.805	3.014
		7	-1.763	1.271	1.000	-6.074	2.548
		8	.881	1.163	1.000	-3.061	4.824
		9	-.588	.989	1.000	-3.939	2.764
		11	.881	.781	1.000	-1.766	3.529
		12	1.469	.892	.999	-1.557	4.495
	11	1	-10.062(*)	1.404	.000	-14.821	-5.303
		2	-8.887(*)	1.397	.000	-13.625	-4.149
		3	-6.904(*)	1.437	.000	-11.775	-2.033

High	12	4	-4.774(*)	1.307	.019	-9.204	-.344
		5	-2.938	1.211	.651	-7.045	1.170
		6	-2.277	1.291	.996	-6.656	2.102
		7	-2.644	1.222	.876	-6.787	1.499
		8	.000	1.179	1.000	-3.998	3.998
		9	-1.469	1.101	1.000	-5.203	2.265
		10	-.881	.781	1.000	-3.529	1.766
		12	.588	.511	1.000	-1.146	2.321
		1	-10.650(*)	1.398	.000	-15.389	-5.910
		2	-9.475(*)	1.402	.000	-14.230	-4.719
		3	-7.492(*)	1.453	.000	-12.417	-2.566
		4	-5.362(*)	1.309	.003	-9.799	-.924
	1	5	-3.525	1.222	.241	-7.670	.619
		6	-2.864	1.297	.845	-7.262	1.533
		7	-3.232	1.239	.467	-7.433	.970
		8	-.588	1.206	1.000	-4.677	3.502
		9	-2.056	1.160	.995	-5.989	1.876
		10	-1.469	.892	.999	-4.495	1.557
		11	-.588	.511	1.000	-2.321	1.146
		2	-.591	1.171	1.000	-4.562	3.380
		3	-1.034	1.384	1.000	-5.726	3.658
		4	.295	1.702	1.000	-5.476	6.067
		5	1.920	1.782	1.000	-4.121	7.962
		6	-2.955	1.797	.999	-9.048	3.139
	2	7	-.739	1.958	1.000	-7.376	5.899
		8	1.477	2.035	1.000	-5.423	8.377
		9	-.886	1.952	1.000	-7.505	5.732
		10	2.364	2.002	1.000	-4.424	9.151
		11	4.284	1.991	.884	-2.465	11.034
		12	4.727	1.982	.691	-1.994	11.449
		1	.591	1.171	1.000	-3.380	4.562
		3	-.443	1.099	1.000	-4.170	3.283
		4	.886	1.485	1.000	-4.147	5.920

3	5	2.511	1.603	1.000	-2.923	7.946
	6	-2.364	1.631	1.000	-7.894	3.167
	7	-.148	1.833	1.000	-6.364	6.069
	8	2.068	1.890	1.000	-4.342	8.478
	9	-.295	1.922	1.000	-6.812	6.222
	10	2.955	2.016	1.000	-3.882	9.791
	11	4.875	1.982	.616	-1.845	11.595
	12	5.318	1.989	.406	-1.426	12.062
	1	1.034	1.384	1.000	-3.658	5.726
	2	.443	1.099	1.000	-3.283	4.170
	4	1.330	1.405	1.000	-3.433	6.092
	5	2.955	1.532	.975	-2.241	8.150
4	6	-1.920	1.666	1.000	-7.570	3.729
	7	.295	1.908	1.000	-6.175	6.766
	8	2.511	1.928	1.000	-4.027	9.049
	9	.148	1.996	1.000	-6.619	6.914
	10	3.398	2.096	.999	-3.711	10.506
	11	5.318	2.037	.465	-1.590	12.226
	12	5.761	2.060	.303	-1.225	12.747
	1	-.295	1.702	1.000	-6.067	5.476
	2	-.886	1.485	1.000	-5.920	4.147
	3	-1.330	1.405	1.000	-6.092	3.433
	5	1.625	1.184	1.000	-2.389	5.639
	6	-3.250	1.600	.945	-8.677	2.177
5	7	-1.034	1.762	1.000	-7.007	4.939
	8	1.182	1.827	1.000	-5.012	7.376
	9	-1.182	1.921	1.000	-7.695	5.331
	10	2.068	1.946	1.000	-4.531	8.667
	11	3.989	1.853	.883	-2.295	10.272
	12	4.432	1.856	.688	-1.861	10.725
	1	-1.920	1.782	1.000	-7.962	4.121
	2	-2.511	1.603	1.000	-7.946	2.923
	3	-2.955	1.532	.975	-8.150	2.241

6	4	-1.625	1.184	1.000	-5.639	2.389
	6	-4.875(*)	1.402	.037	-9.629	-.121
	7	-2.659	1.576	.998	-8.003	2.685
	8	-.443	1.639	1.000	-6.001	5.114
	9	-2.807	1.747	1.000	-8.730	3.116
	10	.443	1.801	1.000	-5.663	6.550
	11	2.364	1.718	1.000	-3.462	8.189
	12	2.807	1.733	.999	-3.071	8.684
	1	2.955	1.797	.999	-3.139	9.048
	2	2.364	1.631	1.000	-3.167	7.894
	3	1.920	1.666	1.000	-3.729	7.570
	4	3.250	1.600	.945	-2.177	8.677
7	5	4.875(*)	1.402	.037	.121	9.629
	7	2.216	1.344	.999	-2.342	6.774
	8	4.432	1.652	.397	-1.168	10.032
	9	2.068	1.826	1.000	-4.124	8.261
	10	5.318	1.844	.241	-.935	11.572
	11	7.239(*)	1.832	.006	1.028	13.449
	12	7.682(*)	1.839	.002	1.445	13.919
	1	.739	1.958	1.000	-5.899	7.376
	2	.148	1.833	1.000	-6.069	6.364
	3	-.295	1.908	1.000	-6.766	6.175
	4	1.034	1.762	1.000	-4.939	7.007
	5	2.659	1.576	.998	-2.685	8.003
8	6	-2.216	1.344	.999	-6.774	2.342
	8	2.216	1.431	1.000	-2.636	7.067
	9	-.148	1.689	1.000	-5.873	5.578
	10	3.102	1.803	.997	-3.012	9.216
	11	5.023	1.733	.232	-.853	10.899
	12	5.466	1.757	.125	-.493	11.425
	1	-1.477	2.035	1.000	-8.377	5.423
	2	-2.068	1.890	1.000	-8.478	4.342
	3	-2.511	1.928	1.000	-9.049	4.027



9	4	-1.182	1.827	1.000	-7.376	5.012
	5	.443	1.639	1.000	-5.114	6.001
	6	-4.432	1.652	.397	-10.032	1.168
	7	-2.216	1.431	1.000	-7.067	2.636
	9	-2.364	1.345	.996	-6.924	2.197
	10	.886	1.649	1.000	-4.705	6.478
	11	2.807	1.672	.999	-2.863	8.477
	12	3.250	1.710	.981	-2.550	9.050
	1	.886	1.952	1.000	-5.732	7.505
	2	.295	1.922	1.000	-6.222	6.812
	3	-.148	1.996	1.000	-6.914	6.619
	4	1.182	1.921	1.000	-5.331	7.695
10	5	2.807	1.747	1.000	-3.116	8.730
	6	-2.068	1.826	1.000	-8.261	4.124
	7	.148	1.689	1.000	-5.578	5.873
	8	2.364	1.345	.996	-2.197	6.924
	10	3.250	1.402	.754	-1.504	8.004
	11	5.170	1.562	.066	-.125	10.466
	12	5.614(*)	1.645	.046	.037	11.191
	1	-2.364	2.002	1.000	-9.151	4.424
	2	-2.955	2.016	1.000	-9.791	3.882
	3	-3.398	2.096	.999	-10.506	3.711
	4	-2.068	1.946	1.000	-8.667	4.531
	5	-.443	1.801	1.000	-6.550	5.663
11	6	-5.318	1.844	.241	-11.572	.935
	7	-3.102	1.803	.997	-9.216	3.012
	8	-.886	1.649	1.000	-6.478	4.705
	9	-3.250	1.402	.754	-8.004	1.504
	11	1.920	1.108	.997	-1.835	5.676
	12	2.364	1.266	.986	-1.928	6.655
	1	-4.284	1.991	.884	-11.034	2.465
	2	-4.875	1.982	.616	-11.595	1.845
	3	-5.318	2.037	.465	-12.226	1.590

	4	-3.989	1.853	.883	-10.272	2.295
	5	-2.364	1.718	1.000	-8.189	3.462
	6	-7.239(*)	1.832	.006	-13.449	-1.028
	7	-5.023	1.733	.232	-10.899	.853
	8	-2.807	1.672	.999	-8.477	2.863
	9	-5.170	1.562	.066	-10.466	.125
	10	-1.920	1.108	.997	-5.676	1.835
	12	.443	.725	1.000	-2.015	2.902
	1	-4.727	1.982	.691	-11.449	1.994
	2	-5.318	1.989	.406	-12.062	1.426
	3	-5.761	2.060	.303	-12.747	1.225
12	4	-4.432	1.856	.688	-10.725	1.861
	5	-2.807	1.733	.999	-8.684	3.071
	6	-7.682(*)	1.839	.002	-13.919	-1.445
	7	-5.466	1.757	.125	-11.425	.493
	8	-3.250	1.710	.981	-9.050	2.550
	9	-5.614(*)	1.645	.046	-11.191	-.037
	10	-2.364	1.266	.986	-6.655	1.928
	11	-.443	.725	1.000	-2.902	2.015

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Close Shares Level \* year

#### Univariate Tests

Measure: MEASURE\_1

year	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1 Contrast	53.729	2	26.865	.715	.490	.004	.171

	Error	13158.911	350	37.597				
2	Contrast	499.813	2	249.906	1.782	.170	.010	.372
	Error	49096.182	350	140.275				
3	Contrast	2918.454	2	1459.227	8.522	.000	.046	.966
	Error	59931.354	350	171.232				
4	Contrast	3061.917	2	1530.958	6.332	.002	.035	.898
	Error	84628.497	350	241.796				
5	Contrast	4553.959	2	2276.980	8.714	.000	.047	.969
	Error	91456.234	350	261.304				
6	Contrast	9526.502	2	4763.251	18.287	.000	.095	1.000
	Error	91164.943	350	260.471				
7	Contrast	6940.053	2	3470.027	11.352	.000	.061	.993
	Error	106987.969	350	305.680				
8	Contrast	7876.250	2	3938.125	11.749	.000	.063	.994
	Error	117317.801	350	335.194				
9	Contrast	12271.991	2	6135.996	19.986	.000	.103	1.000
	Error	107454.694	350	307.013				
10	Contrast	9247.124	2	4623.562	14.827	.000	.078	.999
	Error	109142.882	350	311.837				
11	Contrast	8306.649	2	4153.324	13.542	.000	.072	.998
	Error	107346.801	350	306.705				
12	Contrast	9233.548	2	4616.774	15.051	.000	.079	.999
	Error	107362.089	350	306.749				

Each F tests the simple effects of Close Shares Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Close Shares Level	(J) Close Shares Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	.364	.800	.957	-1.555	2.283
		High	-.591	.924	.892	-2.809	1.627
	Medium	Low	-.364	.800	.957	-2.283	1.555
		High	-.955	.800	.549	-2.874	.964
	High	Low	.591	.924	.892	-1.627	2.809
		Medium	.955	.800	.549	-.964	2.874
2	Low	Medium	-.086	1.545	1.000	-3.792	3.620
		High	-2.807	1.786	.311	-7.091	1.477
	Medium	Low	.086	1.545	1.000	-3.620	3.792
		High	-2.721	1.545	.219	-6.427	.986
	High	Low	2.807	1.786	.311	-1.477	7.091
		Medium	2.721	1.545	.219	-.986	6.427
3	Low	Medium	-2.830	1.707	.267	-6.925	1.265
		High	-7.977(*)	1.973	.000	-12.710	-3.244
	Medium	Low	2.830	1.707	.267	-1.265	6.925
		High	-5.147(*)	1.707	.008	-9.242	-1.052
	High	Low	7.977(*)	1.973	.000	3.244	12.710
		Medium	5.147(*)	1.707	.008	1.052	9.242
4	Low	Medium	-1.882	2.028	.731	-6.748	2.984
		High	-7.830(*)	2.344	.003	-13.454	-2.205
	Medium	Low	1.882	2.028	.731	-2.984	6.748
		High	-5.947(*)	2.028	.011	-10.814	-1.081
	High	Low	7.830(*)	2.344	.003	2.205	13.454
		Medium	5.947(*)	2.028	.011	1.081	10.814
5	Low	Medium	-3.887	2.108	.186	-8.945	1.172
		High	-10.045(*)	2.437	.000	-15.892	-4.199
	Medium	Low	3.887	2.108	.186	-1.172	8.945
		High	-6.159(*)	2.108	.011	-11.217	-1.100
	High	Low	10.045(*)	2.437	.000	4.199	15.892
		Medium	6.159(*)	2.108	.011	1.100	11.217

6	Low	Medium	-.862	2.105	.968	-5.913	4.188
		High	-12.557(*)	2.433	.000	-18.394	-6.719
		Low	.862	2.105	.968	-4.188	5.913
	Medium	High	-11.695(*)	2.105	.000	-16.745	-6.644
		Low	12.557(*)	2.433	.000	6.719	18.394
		Medium	11.695(*)	2.105	.000	6.644	16.745
7	Low	Medium	-2.559	2.280	.599	-8.030	2.912
		High	-11.670(*)	2.636	.000	-17.994	-5.347
		Low	2.559	2.280	.599	-2.912	8.030
	Medium	High	-9.112(*)	2.280	.000	-14.583	-3.640
		Low	11.670(*)	2.636	.000	5.347	17.994
		Medium	9.112(*)	2.280	.000	3.640	14.583
8	Low	Medium	-3.017	2.388	.502	-8.747	2.712
		High	-12.557(*)	2.760	.000	-19.179	-5.935
		Low	3.017	2.388	.502	-2.712	8.747
	Medium	High	-9.540(*)	2.388	.000	-15.269	-3.810
		Low	12.557(*)	2.760	.000	5.935	19.179
		Medium	9.540(*)	2.388	.000	3.810	15.269
9	Low	Medium	-5.963(*)	2.285	.028	-11.447	-.480
		High	-16.398(*)	2.642	.000	-22.735	-10.060
		Low	5.963(*)	2.285	.028	.480	11.447
	Medium	High	-10.434(*)	2.285	.000	-15.918	-4.951
		Low	16.398(*)	2.642	.000	10.060	22.735
		Medium	10.434(*)	2.285	.000	4.951	15.918
10	Low	Medium	-6.705(*)	2.303	.011	-12.232	-1.179
		High	-14.477(*)	2.662	.000	-20.864	-8.090
		Low	6.705(*)	2.303	.011	1.179	12.232
	Medium	High	-7.772(*)	2.303	.002	-13.298	-2.246
		Low	14.477(*)	2.662	.000	8.090	20.864
		Medium	7.772(*)	2.303	.002	2.246	13.298
11	Low	Medium	-7.006(*)	2.284	.007	-12.486	-1.525
		High	-13.739(*)	2.640	.000	-20.073	-7.404
		Low	7.006(*)	2.284	.007	1.525	12.486
	Medium	High	-6.733(*)	2.284	.010	-12.213	-1.252
		Low	13.739(*)	2.640	.000	7.404	20.073

12	Low	Medium	6.733(*)	2.284	.010	1.252	12.213
		Medium	-7.600(*)	2.284	.003	-13.081	-2.119
		High	-14.477(*)	2.640	.000	-20.812	-8.142
	Medium	Low	7.600(*)	2.284	.003	2.119	13.081
		High	-6.877(*)	2.284	.008	-12.358	-1.396
	High	Low	14.477(*)	2.640	.000	8.142	20.812
		Medium	6.877(*)	2.284	.008	1.396	12.358

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Level of Closely Held Shares 1	Low	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	32661.698	1	32661.698	66.607	.000	.434	1.000
	Quadratic	480.160	1	480.160	1.928	.169	.022	.279
	Cubic	270.162	1	270.162	2.180	.143	.024	.309

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Level of Closely Held Shares 2	Medium	177

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	21609.252	1	21609.252	54.156	.000	.235	1.000
	Quadratic	2212.624	1	2212.624	11.119	.001	.059	.913
	Cubic	134.002	1	134.002	.883	.349	.005	.155

a. Computed using alpha = .05

### Between-Subjects Factors

	Value Label	N
Level of Closely Held Shares 3	High	88

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	2021.769	1	2021.769	3.708	.057	.041	.478
	Quadratic	1139.754	1	1139.754	5.438	.022	.059	.635
	Cubic	146.189	1	146.189	.801	.373	.009	.143

a. Computed using alpha = .05

## ***General Linear Model of Level of Closely Held Shares for Total CSR***

### Between-Subjects Factors

		Value Label	N
Close Shares Level	1	Low	88
	2	Medium	177
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Lower-bound	42040.113	1.000	42040.113	6.311	.012	.018	.707
year * chslevel	Lower-bound	35342.133	2.000	17671.067	2.653	.072	.015	.525
Error(year)	Lower-bound	2331577.569	350.000	6661.650				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	15564.952	1	15564.952	6.515	.011	.018	.721
	Quadratic	21249.747	1	21249.747	17.547	.000	.048	.987
	Cubic	1344.488	1	1344.488	2.001	.158	.006	.292
year * chslevel	Linear	21250.633	2	10625.316	4.448	.012	.025	.762
	Quadratic	8517.098	2	4258.549	3.517	.031	.020	.654
	Cubic	1625.294	2	812.647	1.210	.300	.007	.264
Error(year)	Linear	836122.898	350	2388.923				
	Quadratic	423850.414	350	1211.001				
	Cubic	235148.271	350	671.852				

a. Computed using alpha = .05



### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
chslevel	89071.478	2	44535.739	2.307	.101	.013	.467
Error	6756862.378	350	19305.321				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	300.493	2.172	296.220	304.765
2	302.887	2.368	298.230	307.545
3	302.738	2.551	297.722	307.755
4	302.173	2.648	296.966	307.381
5	302.234	2.617	297.086	307.382
6	303.864	2.508	298.931	308.797
7	305.385	2.702	300.070	310.700
8	302.131	2.780	296.664	307.598
9	301.775	2.735	296.396	307.154
10	300.090	2.676	294.826	305.354
11	294.884	2.758	289.459	300.309
12	293.565	2.758	288.141	298.990

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.394	1.259	.981	-6.665	1.876
	3	-2.245	1.548	1.000	-7.494	3.003
	4	-1.681	1.954	1.000	-8.305	4.944
	5	-1.741	2.063	1.000	-8.737	5.255
	6	-3.371	2.176	1.000	-10.749	4.007
	7	-4.892	2.326	.912	-12.779	2.995
	8	-1.638	2.365	1.000	-9.657	6.380
	9	-1.282	2.270	1.000	-8.980	6.415
	10	.403	2.274	1.000	-7.307	8.113
	11	5.609	2.439	.770	-2.660	13.878
	12	6.927	2.462	.290	-1.422	15.277
2	1	2.394	1.259	.981	-1.876	6.665
	3	.149	1.186	1.000	-3.874	4.172
	4	.714	1.745	1.000	-5.203	6.631
	5	.653	1.941	1.000	-5.928	7.235
	6	-.977	2.107	1.000	-8.122	6.169
	7	-2.498	2.253	1.000	-10.137	5.142
	8	.756	2.223	1.000	-6.781	8.293
	9	1.112	2.202	1.000	-6.355	8.579
	10	2.797	2.212	1.000	-4.704	10.298
	11	8.003(*)	2.349	.047	.039	15.967
	12	9.322(*)	2.368	.007	1.293	17.350
3	1	2.245	1.548	1.000	-3.003	7.494
	2	-.149	1.186	1.000	-4.172	3.874
	4	.565	1.583	1.000	-4.803	5.932

4	5	.504	1.939	1.000	-6.070	7.078
	6	-1.126	2.094	1.000	-8.227	5.976
	7	-2.647	2.278	1.000	-10.371	5.077
	8	.607	2.240	1.000	-6.990	8.204
	9	.963	2.223	1.000	-6.574	8.500
	10	2.648	2.243	1.000	-4.958	10.254
	11	7.854	2.336	.055	-.068	15.776
	12	9.173(*)	2.347	.007	1.214	17.132
	1	1.681	1.954	1.000	-4.944	8.305
	2	-.714	1.745	1.000	-6.631	5.203
	3	-.565	1.583	1.000	-5.932	4.803
	5	-.060	1.323	1.000	-4.547	4.426
5	6	-1.690	1.767	1.000	-7.680	4.299
	7	-3.212	1.941	.999	-9.791	3.368
	8	.042	1.992	1.000	-6.713	6.797
	9	.398	2.061	1.000	-6.590	7.387
	10	2.083	2.106	1.000	-5.059	9.226
	11	7.289	2.233	.077	-.282	14.861
	12	8.608(*)	2.190	.007	1.184	16.032
	1	1.741	2.063	1.000	-5.255	8.737
	2	-.653	1.941	1.000	-7.235	5.928
	3	-.504	1.939	1.000	-7.078	6.070
	4	.060	1.323	1.000	-4.426	4.547
	6	-1.630	1.500	1.000	-6.715	3.455
6	7	-3.151	1.753	.993	-9.094	2.791
	8	.103	1.936	1.000	-6.463	6.668
	9	.459	1.979	1.000	-6.250	7.167
	10	2.144	2.060	1.000	-4.840	9.128
	11	7.350	2.209	.062	-.141	14.840
	12	8.668(*)	2.177	.005	1.286	16.051
	1	3.371	2.176	1.000	-4.007	10.749
	2	.977	2.107	1.000	-6.169	8.122
	3	1.126	2.094	1.000	-5.976	8.227

7	4	1.690	1.767	1.000	-4.299	7.680
	5	1.630	1.500	1.000	-3.455	6.715
	7	-1.521	1.236	1.000	-5.713	2.671
	8	1.733	1.624	1.000	-3.773	7.239
	9	2.089	1.755	1.000	-3.861	8.038
	10	3.774	1.923	.967	-2.748	10.296
	11	8.980(*)	2.140	.002	1.723	16.237
	12	10.299(*)	2.112	.000	3.136	17.461
	1	4.892	2.326	.912	-2.995	12.779
	2	2.498	2.253	1.000	-5.142	10.137
	3	2.647	2.278	1.000	-5.077	10.371
	4	3.212	1.941	.999	-3.368	9.791
	5	3.151	1.753	.993	-2.791	9.094
	6	1.521	1.236	1.000	-2.671	5.713
	8	3.254	1.405	.757	-1.512	8.019
	9	3.610	1.582	.786	-1.755	8.974
	10	5.295	1.829	.234	-.908	11.498
	11	10.501(*)	2.110	.000	3.346	17.656
	12	11.820(*)	2.081	.000	4.762	18.877
8	1	1.638	2.365	1.000	-6.380	9.657
	2	-.756	2.223	1.000	-8.293	6.781
	3	-.607	2.240	1.000	-8.204	6.990
	4	-.042	1.992	1.000	-6.797	6.713
	5	-.103	1.936	1.000	-6.668	6.463
	6	-1.733	1.624	1.000	-7.239	3.773
	7	-3.254	1.405	.757	-8.019	1.512
	9	.356	1.143	1.000	-3.519	4.231
	10	2.041	1.566	1.000	-3.270	7.353
	11	7.247(*)	1.798	.005	1.149	13.345
	12	8.566(*)	1.879	.000	2.194	14.937
9	1	1.282	2.270	1.000	-6.415	8.980
	2	-1.112	2.202	1.000	-8.579	6.355
	3	-.963	2.223	1.000	-8.500	6.574

10	4	-.398	2.061	1.000	-7.387	6.590
	5	-.459	1.979	1.000	-7.167	6.250
	6	-2.089	1.755	1.000	-8.038	3.861
	7	-3.610	1.582	.786	-8.974	1.755
	8	-.356	1.143	1.000	-4.231	3.519
	10	1.685	1.347	1.000	-2.880	6.251
	11	6.891(*)	1.642	.002	1.322	12.460
	12	8.210(*)	1.721	.000	2.373	14.047
	1	-.403	2.274	1.000	-8.113	7.307
	2	-2.797	2.212	1.000	-10.298	4.704
	3	-2.648	2.243	1.000	-10.254	4.958
	4	-2.083	2.106	1.000	-9.226	5.059
11	5	-2.144	2.060	1.000	-9.128	4.840
	6	-3.774	1.923	.967	-10.296	2.748
	7	-5.295	1.829	.234	-11.498	.908
	8	-2.041	1.566	1.000	-7.353	3.270
	9	-1.685	1.347	1.000	-6.251	2.880
	11	5.206(*)	1.132	.000	1.368	9.044
	12	6.525(*)	1.352	.000	1.940	11.110
	1	-5.609	2.439	.770	-13.878	2.660
	2	-8.003(*)	2.349	.047	-15.967	-.039
	3	-7.854	2.336	.055	-15.776	.068
	4	-7.289	2.233	.077	-14.861	.282
	5	-7.350	2.209	.062	-14.840	.141
12	6	-8.980(*)	2.140	.002	-16.237	-1.723
	7	-10.501(*)	2.110	.000	-17.656	-3.346
	8	-7.247(*)	1.798	.005	-13.345	-1.149
	9	-6.891(*)	1.642	.002	-12.460	-1.322
	10	-5.206(*)	1.132	.000	-9.044	-1.368
	12	1.319	.971	1.000	-1.974	4.611
	1	-6.927	2.462	.290	-15.277	1.422
	2	-9.322(*)	2.368	.007	-17.350	-1.293
	3	-9.173(*)	2.347	.007	-17.132	-1.214

4	-8.608(*)	2.190	.007	-16.032	-1.184
5	-8.668(*)	2.177	.005	-16.051	-1.286
6	-10.299(*)	2.112	.000	-17.461	-3.136
7	-11.820(*)	2.081	.000	-18.877	-4.762
8	-8.566(*)	1.879	.000	-14.937	-2.194
9	-8.210(*)	1.721	.000	-14.047	-2.373
10	-6.525(*)	1.352	.000	-11.110	-1.940
11	-1.319	.971	1.000	-4.611	1.974

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Close Shares Level

### Estimates

Measure: MEASURE\_1

Close Shares Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	298.990	4.276	290.580	307.399
Medium	296.448	3.015	290.519	302.378
High	307.617	4.276	299.208	316.027

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	7422.623	2	3711.312	2.307	.101	.013	.467
Error	563071.865	350	1608.777				

The F tests the effect of Close Shares Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Close Shares Level	(J) Close Shares Level				Upper Bound	Lower Bound
Low	Medium	2.541	5.232	.948	-10.011	15.093
	High	-8.628	6.047	.396	-23.135	5.880
Medium	Low	-2.541	5.232	.948	-15.093	10.011
	High	-11.169	5.232	.097	-23.721	1.383
High	Low	8.628	6.047	.396	-5.880	23.135
	Medium	11.169	5.232	.097	-1.383	23.721

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Close Shares Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Close Shares Level	year			Lower Bound	Upper Bound
Low	1	303.273	4.124	295.162	311.384
	2	305.705	4.496	296.863	314.546
	3	302.227	4.842	292.704	311.751
	4	300.670	5.027	290.784	310.557
	5	298.716	4.969	288.943	308.488
	6	302.761	4.762	293.396	312.127
	7	304.114	5.130	294.023	314.204
	8	299.193	5.277	288.814	309.572
	9	295.375	5.192	285.163	305.587
	10	295.807	5.081	285.814	305.800
	11	291.057	5.237	280.758	301.356
	12	288.977	5.236	278.680	299.275

Medium	1	298.751	2.908	293.032	304.471
	2	300.525	3.170	294.291	306.760
	3	301.192	3.414	294.477	307.907
	4	299.407	3.544	292.436	306.378
	5	298.508	3.504	291.618	305.399
	6	295.831	3.358	289.227	302.434
	7	298.723	3.617	291.608	305.838
	8	294.689	3.721	287.371	302.008
	9	295.644	3.661	288.444	302.844
	10	294.452	3.583	287.406	301.498
	11	289.209	3.692	281.947	296.471
	12	290.446	3.692	283.185	297.707
High	1	299.455	4.124	291.343	307.566
	2	302.432	4.496	293.590	311.274
	3	304.795	4.842	295.272	314.319
	4	306.443	5.027	296.557	316.329
	5	309.477	4.969	299.705	319.250
	6	313.000	4.762	303.634	322.366
	7	313.318	5.130	303.228	323.409
	8	312.511	5.277	302.132	322.890
	9	314.307	5.192	304.095	324.519
	10	310.011	5.081	300.018	320.004
	11	304.386	5.237	294.087	314.685
	12	301.273	5.236	290.975	311.570



## APPENDIX L

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Net Income

#### *General Linear Model of Level of Net Income for Community Relations*

##### Between-Subjects Factors

		Value Label	N
Net Income Level	1	Low	88
	2	Medium	177
	3	High	88

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	22745.344	11	2067.759	20.923	.000	.056	1.000
	Greenhouse-Geisser	22745.344	4.250	5351.925	20.923	.000	.056	1.000
	Huynh-Feldt	22745.344	4.333	5249.004	20.923	.000	.056	1.000
	Lower-bound	22745.344	1.000	22745.344	20.923	.000	.056	.995
year * nilevel	Sphericity Assumed	11179.636	22	508.165	5.142	.000	.029	1.000
	Greenhouse-Geisser	11179.636	8.500	1315.271	5.142	.000	.029	1.000
	Huynh-Feldt	11179.636	8.667	1289.977	5.142	.000	.029	1.000
	Lower-bound	11179.636	2.000	5589.818	5.142	.006	.029	.823
Error(year)	Sphericity Assumed	380491.461	3850	98.829				
	Greenhouse-Geisser	380491.461	1487.478	255.796				
	Huynh-Feldt	380491.461	1516.644	250.877				
	Lower-bound	380491.461	350.000	1087.118				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	19916.888	1	19916.888	47.391	.000	.119	1.000
	Quadratic	330.050	1	330.050	2.020	.156	.006	.294
	Cubic	1721.001	1	1721.001	16.473	.000	.045	.982
year * nilevel	Linear	9002.996	2	4501.498	10.711	.000	.058	.990
	Quadratic	173.631	2	86.815	.531	.588	.003	.138
	Cubic	324.108	2	162.054	1.551	.213	.009	.329
Error(year)	Linear	147092.289	350	420.264				
	Quadratic	57187.058	350	163.392				
	Cubic	36566.839	350	104.477				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	39340.127	2	19670.064	9.256	.000	.050	.977
Error	743790.696	350	2125.116				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	45.983	1.419	43.193	48.773
Medium	49.062	1.000	47.094	51.029
High	54.457	1.419	51.667	57.247

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3278.344	2	1639.172	9.256	.000	.050	.977
Error	61982.558	350	177.093				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Net Income Level	(J) Net Income Level				Upper Bound	Lower Bound
Low	Medium	-3.079	1.736	.214	-7.243	1.086
	High	-8.474(*)	2.006	.000	-13.288	-3.661
Medium	Low	3.079	1.736	.214	-1.086	7.243
	High	-5.396(*)	1.736	.006	-9.560	-1.231
High	Low	8.474(*)	2.006	.000	3.661	13.288
	Medium	5.396(*)	1.736	.006	1.231	9.560

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Sidak.

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.612	.901	49.841	53.384
2	52.955	.941	51.105	54.806
3	53.599	1.054	51.526	55.673
4	51.699	.966	49.800	53.598
5	51.559	.974	49.644	53.475
6	50.185	.882	48.451	51.919
7	50.325	.910	48.536	52.114
8	48.502	.895	46.741	50.262
9	47.827	.912	46.032	49.621
10	46.603	.833	44.964	48.242
11	46.197	.835	44.554	47.839
12	46.946	.899	45.178	48.714

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-1.343	.481	.305	-2.973	.287
	3	-1.987	.686	.234	-4.313	.340
	4	-.087	.805	1.000	-2.816	2.643
	5	.053	.891	1.000	-2.967	3.074
	6	1.428	.903	1.000	-1.634	4.489

2	7	1.288	.911	1.000	-1.802	4.378
	8	3.111(*)	.913	.047	.017	6.205
	9	3.786(*)	.909	.003	.705	6.866
	10	5.010(*)	.914	.000	1.911	8.109
	11	5.416(*)	.921	.000	2.293	8.538
	12	4.666(*)	.961	.000	1.408	7.925
	1	1.343	.481	.305	-.287	2.973
	3	-.644	.519	1.000	-2.405	1.118
	4	1.256	.745	.998	-1.271	3.784
	5	1.396	.848	.999	-1.478	4.270
	6	2.771	.901	.139	-.283	5.825
	7	2.631	.927	.272	-.512	5.773
3	8	4.454(*)	.921	.000	1.329	7.578
	9	5.129(*)	.928	.000	1.983	8.274
	10	6.353(*)	.930	.000	3.200	9.505
	11	6.759(*)	.945	.000	3.554	9.963
	12	6.009(*)	.985	.000	2.670	9.349
	1	1.987	.686	.234	-.340	4.313
	2	.644	.519	1.000	-1.118	2.405
	4	1.900	.661	.247	-.340	4.141
	5	2.040	.835	.632	-.790	4.870
	6	3.415(*)	.912	.014	.321	6.508
	7	3.275(*)	.943	.038	.077	6.473
	8	5.098(*)	.942	.000	1.903	8.292
4	9	5.772(*)	.953	.000	2.542	9.003
	10	6.996(*)	.967	.000	3.716	10.277
	11	7.403(*)	.993	.000	4.036	10.769
	12	6.653(*)	1.044	.000	3.113	10.193
	1	.087	.805	1.000	-2.643	2.816
	2	-1.256	.745	.998	-3.784	1.271
	3	-1.900	.661	.247	-4.141	.340
	5	.140	.611	1.000	-1.933	2.212
	6	1.514	.769	.965	-1.093	4.122

5	7	1.375	.811	.998	-1.376	4.125
	8	3.197(*)	.842	.011	.342	6.053
	9	3.872(*)	.846	.000	1.003	6.742
	10	5.096(*)	.858	.000	2.188	8.005
	11	5.502(*)	.888	.000	2.492	8.513
	12	4.753(*)	.945	.000	1.550	7.956
	1	-.053	.891	1.000	-3.074	2.967
	2	-1.396	.848	.999	-4.270	1.478
	3	-2.040	.835	.632	-4.870	.790
	4	-.140	.611	1.000	-2.212	1.933
	6	1.375	.614	.823	-.708	3.458
	7	1.235	.729	.998	-1.238	3.708
6	8	3.058(*)	.804	.011	.331	5.785
	9	3.733(*)	.862	.001	.809	6.656
	10	4.957(*)	.860	.000	2.042	7.871
	11	5.363(*)	.866	.000	2.425	8.300
	12	4.613(*)	.895	.000	1.579	7.647
	1	-1.428	.903	1.000	-4.489	1.634
	2	-2.771	.901	.139	-5.825	.283
	3	-3.415(*)	.912	.014	-6.508	-.321
	4	-1.514	.769	.965	-4.122	1.093
	5	-1.375	.614	.823	-3.458	.708
	7	-.140	.531	1.000	-1.939	1.659
	8	1.683	.657	.512	-.544	3.910
7	9	2.358	.741	.101	-.156	4.872
	10	3.582(*)	.780	.000	.936	6.227
	11	3.988(*)	.779	.000	1.345	6.631
	12	3.238(*)	.780	.003	.593	5.884
	1	-1.288	.911	1.000	-4.378	1.802
	2	-2.631	.927	.272	-5.773	.512
	3	-3.275(*)	.943	.038	-6.473	-.077
	4	-1.375	.811	.998	-4.125	1.376
	5	-1.235	.729	.998	-3.708	1.238

8	6	.140	.531	1.000	-1.659	1.939
	8	1.823	.542	.055	-.016	3.661
	9	2.498(*)	.637	.007	.336	4.659
	10	3.722(*)	.697	.000	1.359	6.085
	11	4.128(*)	.714	.000	1.708	6.548
	12	3.378(*)	.689	.000	1.044	5.713
	1	-3.111(*)	.913	.047	-6.205	-.017
	2	-4.454(*)	.921	.000	-7.578	-1.329
	3	-5.098(*)	.942	.000	-8.292	-1.903
	4	-3.197(*)	.842	.011	-6.053	-.342
	5	-3.058(*)	.804	.011	-5.785	-.331
	6	-1.683	.657	.512	-3.910	.544
9	7	-1.823	.542	.055	-3.661	.016
	9	.675	.382	.995	-.620	1.969
	10	1.899(*)	.548	.039	.040	3.758
	11	2.305(*)	.570	.004	.372	4.238
	12	1.556	.582	.405	-.417	3.528
	1	-3.786(*)	.909	.003	-6.866	-.705
	2	-5.129(*)	.928	.000	-8.274	-1.983
	3	-5.772(*)	.953	.000	-9.003	-2.542
	4	-3.872(*)	.846	.000	-6.742	-1.003
	5	-3.733(*)	.862	.001	-6.656	-.809
	6	-2.358	.741	.101	-4.872	.156
	7	-2.498(*)	.637	.007	-4.659	-.336
10	8	-.675	.382	.995	-1.969	.620
	10	1.224	.456	.396	-.322	2.770
	11	1.630	.540	.164	-.200	3.460
	12	.881	.566	1.000	-1.039	2.800
	1	-5.010(*)	.914	.000	-8.109	-1.911
	2	-6.353(*)	.930	.000	-9.505	-3.200
	3	-6.996(*)	.967	.000	-10.277	-3.716
	4	-5.096(*)	.858	.000	-8.005	-2.188
	5	-4.957(*)	.860	.000	-7.871	-2.042

11	6	-3.582(*)	.780	.000	-6.227	-.936
	7	-3.722(*)	.697	.000	-6.085	-1.359
	8	-1.899(*)	.548	.039	-3.758	-.040
	9	-1.224	.456	.396	-2.770	.322
	11	.406	.329	1.000	-.711	1.523
	12	-.343	.515	1.000	-2.089	1.402
	1	-5.416(*)	.921	.000	-8.538	-2.293
	2	-6.759(*)	.945	.000	-9.963	-3.554
	3	-7.403(*)	.993	.000	-10.769	-4.036
	4	-5.502(*)	.888	.000	-8.513	-2.492
	5	-5.363(*)	.866	.000	-8.300	-2.425
12	6	-3.988(*)	.779	.000	-6.631	-1.345
	7	-4.128(*)	.714	.000	-6.548	-1.708
	8	-2.305(*)	.570	.004	-4.238	-.372
	9	-1.630	.540	.164	-3.460	.200
	10	-.406	.329	1.000	-1.523	.711
	12	-.750	.385	.971	-2.055	.555
	1	-4.666(*)	.961	.000	-7.925	-1.408
	2	-6.009(*)	.985	.000	-9.349	-2.670
	3	-6.653(*)	1.044	.000	-10.193	-3.113
	4	-4.753(*)	.945	.000	-7.956	-1.550
	5	-4.613(*)	.895	.000	-7.647	-1.579
	6	-3.238(*)	.780	.003	-5.884	-.593
	7	-3.378(*)	.689	.000	-5.713	-1.044
	8	-1.556	.582	.405	-3.528	.417
	9	-.881	.566	1.000	-2.800	1.039
	10	.343	.515	1.000	-1.402	2.089
	11	.750	.385	.971	-.555	2.055

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year



### Estimates

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.409	1.710	43.046	49.772
	2	46.909	1.786	43.396	50.422
	3	46.295	2.001	42.359	50.232
	4	46.909	1.833	43.303	50.515
	5	47.830	1.849	44.193	51.466
	6	45.682	1.674	42.390	48.974
	7	45.375	1.727	41.979	48.771
	8	45.295	1.699	41.953	48.638
	9	45.205	1.732	41.798	48.612
	10	45.295	1.582	42.184	48.407
	11	45.602	1.586	42.484	48.721
	12	44.989	1.707	41.632	48.345
Medium	1	49.644	1.206	47.273	52.016
	2	50.616	1.259	48.139	53.093
	3	52.638	1.411	49.863	55.414
	4	50.915	1.293	48.373	53.458
	5	50.712	1.304	48.148	53.276
	6	49.542	1.180	47.221	51.864
	7	49.655	1.218	47.261	52.050
	8	48.119	1.198	45.762	50.475
	9	47.480	1.221	45.078	49.883
	10	46.763	1.115	44.569	48.957
	11	46.226	1.118	44.027	48.425
	12	46.429	1.203	44.063	48.796
High	1	58.784	1.710	55.421	62.147
	2	61.341	1.786	57.828	64.854
	3	61.864	2.001	57.927	65.800

4	57.273	1.833	53.667	60.879
5	56.136	1.849	52.500	59.773
6	55.330	1.674	52.038	58.622
7	55.943	1.727	52.547	59.339
8	52.091	1.699	48.749	55.433
9	50.795	1.732	47.388	54.202
10	47.750	1.582	44.639	50.861
11	46.761	1.586	43.643	49.880
12	49.420	1.707	46.064	52.777

#### Multivariate Tests

Net Income Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.016	.506(b)	11.000	340.000	.899	.016	.278
	Wilks' lambda	.984	.506(b)	11.000	340.000	.899	.016	.278
	Hotelling's trace	.016	.506(b)	11.000	340.000	.899	.016	.278
	Roy's largest root	.016	.506(b)	11.000	340.000	.899	.016	.278
Medium	Pillai's trace	.079	2.641(b)	11.000	340.000	.003	.079	.972
	Wilks' lambda	.921	2.641(b)	11.000	340.000	.003	.079	.972
	Hotelling's trace	.085	2.641(b)	11.000	340.000	.003	.079	.972
	Roy's largest root	.085	2.641(b)	11.000	340.000	.003	.079	.972
High	Pillai's trace	.202	7.840(b)	11.000	340.000	.000	.202	1.000
	Wilks' lambda	.798	7.840(b)	11.000	340.000	.000	.202	1.000
	Hotelling's trace	.254	7.840(b)	11.000	340.000	.000	.202	1.000
	Roy's largest root	.254	7.840(b)	11.000	340.000	.000	.202	1.000

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

#### Pairwise Comparisons

Measure: MEASURE\_1

Net Income Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
Low	1	2	-.500	.913	1.000	-3.594	2.594
		3	.114	1.303	1.000	-4.303	4.531
		4	-.500	1.528	1.000	-5.681	4.681
		5	-1.420	1.691	1.000	-7.154	4.314
		6	.727	1.714	1.000	-5.085	6.539
		7	1.034	1.730	1.000	-4.832	6.900
		8	1.114	1.732	1.000	-4.760	6.988
		9	1.205	1.725	1.000	-4.644	7.053
		10	1.114	1.735	1.000	-4.770	6.997
		11	.807	1.748	1.000	-5.121	6.735
		12	1.420	1.824	1.000	-4.765	7.606
	2	1	.500	.913	1.000	-2.594	3.594
		3	.614	.986	1.000	-2.730	3.958
		4	-1.42E-014	1.415	1.000	-4.798	4.798
		5	-.920	1.609	1.000	-6.376	4.535
		6	1.227	1.710	1.000	-4.571	7.025
		7	1.534	1.759	1.000	-4.432	7.500
		8	1.614	1.749	1.000	-4.318	7.545
		9	1.705	1.761	1.000	-4.266	7.675
		10	1.614	1.765	1.000	-4.371	7.598
		11	1.307	1.794	1.000	-4.776	7.390
		12	1.920	1.870	1.000	-4.419	8.260
	3	1	-.114	1.303	1.000	-4.531	4.303
		2	-.614	.986	1.000	-3.958	2.730
		4	-.614	1.254	1.000	-4.867	3.640
		5	-1.534	1.585	1.000	-6.907	3.839
		6	.614	1.732	1.000	-5.260	6.487
		7	.920	1.791	1.000	-5.151	6.992

4	8	1.000	1.789	1.000	-5.065	7.065
	9	1.091	1.809	1.000	-5.042	7.224
	10	1.000	1.837	1.000	-5.228	7.228
	11	.693	1.885	1.000	-5.698	7.085
	12	1.307	1.982	1.000	-5.414	8.027
	1	.500	1.528	1.000	-4.681	5.681
	2	1.42E-014	1.415	1.000	-4.798	4.798
	3	.614	1.254	1.000	-3.640	4.867
	5	-.920	1.160	1.000	-4.855	3.014
	6	1.227	1.460	1.000	-3.722	6.177
	7	1.534	1.540	1.000	-3.688	6.756
	8	1.614	1.599	1.000	-3.808	7.035
5	9	1.705	1.607	1.000	-3.743	7.152
	10	1.614	1.628	1.000	-3.908	7.135
	11	1.307	1.686	1.000	-4.409	7.022
	12	1.920	1.794	1.000	-4.161	8.002
	1	1.420	1.691	1.000	-4.314	7.154
	2	.920	1.609	1.000	-4.535	6.376
	3	1.534	1.585	1.000	-3.839	6.907
	4	.920	1.160	1.000	-3.014	4.855
	6	2.148	1.166	.989	-1.806	6.102
	7	2.455	1.385	.995	-2.240	7.149
	8	2.534	1.527	.999	-2.643	7.711
	9	2.625	1.637	1.000	-2.925	8.175
6	10	2.534	1.632	1.000	-2.999	8.067
	11	2.227	1.645	1.000	-3.350	7.804
	12	2.841	1.699	.999	-2.919	8.600
	1	-.727	1.714	1.000	-6.539	5.085
	2	-1.227	1.710	1.000	-7.025	4.571
	3	-.614	1.732	1.000	-6.487	5.260
	4	-1.227	1.460	1.000	-6.177	3.722
	5	-2.148	1.166	.989	-6.102	1.806
	7	.307	1.007	1.000	-3.109	3.723

7	8	.386	1.247	1.000	-3.842	4.615
	9	.477	1.408	1.000	-4.295	5.250
	10	.386	1.481	1.000	-4.636	5.409
	11	.080	1.480	1.000	-4.938	5.097
	12	.693	1.481	1.000	-4.329	5.715
	1	-1.034	1.730	1.000	-6.900	4.832
	2	-1.534	1.759	1.000	-7.500	4.432
	3	-.920	1.791	1.000	-6.992	5.151
	4	-1.534	1.540	1.000	-6.756	3.688
	5	-2.455	1.385	.995	-7.149	2.240
	6	-.307	1.007	1.000	-3.723	3.109
	8	.080	1.029	1.000	-3.411	3.570
8	9	.170	1.210	1.000	-3.933	4.274
	10	.080	1.323	1.000	-4.407	4.566
	11	-.227	1.355	1.000	-4.821	4.366
	12	.386	1.307	1.000	-4.046	4.818
	1	-1.114	1.732	1.000	-6.988	4.760
	2	-1.614	1.749	1.000	-7.545	4.318
	3	-1.000	1.789	1.000	-7.065	5.065
	4	-1.614	1.599	1.000	-7.035	3.808
	5	-2.534	1.527	.999	-7.711	2.643
	6	-.386	1.247	1.000	-4.615	3.842
	7	-.080	1.029	1.000	-3.570	3.411
	9	.091	.725	1.000	-2.367	2.548
9	10	-7.11E-015	1.041	1.000	-3.530	3.530
	11	-.307	1.082	1.000	-3.977	3.363
	12	.307	1.104	1.000	-3.438	4.051
	1	-1.205	1.725	1.000	-7.053	4.644
	2	-1.705	1.761	1.000	-7.675	4.266
	3	-1.091	1.809	1.000	-7.224	5.042
	4	-1.705	1.607	1.000	-7.152	3.743
	5	-2.625	1.637	1.000	-8.175	2.925
	6	-.477	1.408	1.000	-5.250	4.295

10	7	-.170	1.210	1.000	-4.274	3.933
	8	-.091	.725	1.000	-2.548	2.367
	10	-.091	.865	1.000	-3.025	2.844
	11	-.398	1.025	1.000	-3.872	3.077
	12	.216	1.075	1.000	-3.428	3.860
	1	-1.114	1.735	1.000	-6.997	4.770
	2	-1.614	1.765	1.000	-7.598	4.371
	3	-1.000	1.837	1.000	-7.228	5.228
	4	-1.614	1.628	1.000	-7.135	3.908
	5	-2.534	1.632	1.000	-8.067	2.999
	6	-.386	1.481	1.000	-5.409	4.636
	7	-.080	1.323	1.000	-4.566	4.407
11	8	7.11E-015	1.041	1.000	-3.530	3.530
	9	.091	.865	1.000	-2.844	3.025
	11	-.307	.625	1.000	-2.427	1.814
	12	.307	.977	1.000	-3.007	3.621
	1	-.807	1.748	1.000	-6.735	5.121
	2	-1.307	1.794	1.000	-7.390	4.776
	3	-.693	1.885	1.000	-7.085	5.698
	4	-1.307	1.686	1.000	-7.022	4.409
	5	-2.227	1.645	1.000	-7.804	3.350
	6	-.080	1.480	1.000	-5.097	4.938
	7	.227	1.355	1.000	-4.366	4.821
	8	.307	1.082	1.000	-3.363	3.977
12	9	.398	1.025	1.000	-3.077	3.872
	10	.307	.625	1.000	-1.814	2.427
	12	.614	.731	1.000	-1.864	3.091
	1	-1.420	1.824	1.000	-7.606	4.765
	2	-1.920	1.870	1.000	-8.260	4.419
	3	-1.307	1.982	1.000	-8.027	5.414
	4	-1.920	1.794	1.000	-8.002	4.161
	5	-2.841	1.699	.999	-8.600	2.919
	6	-.693	1.481	1.000	-5.715	4.329

Medium	1	7	-.386	1.307	1.000	-4.818	4.046
		8	-.307	1.104	1.000	-4.051	3.438
		9	-.216	1.075	1.000	-3.860	3.428
		10	-.307	.977	1.000	-3.621	3.007
		11	-.614	.731	1.000	-3.091	1.864
		2	-.972	.643	1.000	-3.154	1.210
		3	-2.994	.919	.078	-6.109	.120
		4	-1.271	1.077	1.000	-4.925	2.382
		5	-1.068	1.192	1.000	-5.111	2.975
		6	.102	1.209	1.000	-3.997	4.200
		7	-.011	1.220	1.000	-4.148	4.125
		8	1.525	1.222	1.000	-2.616	5.667
	2	9	2.164	1.216	.995	-1.960	6.288
		10	2.881	1.223	.719	-1.267	7.030
		11	3.418	1.233	.321	-.762	7.598
		12	3.215	1.286	.576	-1.147	7.576
		1	.972	.643	1.000	-1.210	3.154
		3	-2.023	.695	.225	-4.380	.335
		4	-.299	.998	1.000	-3.683	3.084
		5	-.096	1.134	1.000	-3.943	3.751
		6	1.073	1.206	1.000	-3.015	5.162
		7	.960	1.241	1.000	-3.246	5.167
		8	2.497	1.233	.948	-1.685	6.679
		9	3.136	1.242	.549	-1.074	7.346
	3	10	3.853	1.244	.131	-.367	8.073
		11	4.390(*)	1.265	.038	.101	8.679
		12	4.186	1.318	.102	-.284	8.657
		1	2.994	.919	.078	-.120	6.109
		2	2.023	.695	.225	-.335	4.380
		4	1.723	.885	.971	-1.276	4.722
		5	1.927	1.117	.997	-1.862	5.715
		6	3.096	1.221	.540	-1.045	7.237
		7	2.983	1.263	.712	-1.298	7.264

4	8	4.520(*)	1.261	.025	.243	8.797
	9	5.158(*)	1.275	.004	.834	9.482
	10	5.876(*)	1.295	.001	1.485	10.267
	11	6.412(*)	1.329	.000	1.906	10.919
	12	6.209(*)	1.398	.001	1.470	10.948
	1	1.271	1.077	1.000	-2.382	4.925
	2	.299	.998	1.000	-3.084	3.683
	3	-1.723	.885	.971	-4.722	1.276
	5	.203	.818	1.000	-2.571	2.978
	6	1.373	1.029	1.000	-2.117	4.863
	7	1.260	1.086	1.000	-2.422	4.942
	8	2.797	1.127	.595	-1.026	6.619
5	9	3.435	1.133	.158	-.406	7.276
	10	4.153(*)	1.148	.022	.259	8.046
	11	4.689(*)	1.189	.006	.659	8.719
	12	4.486(*)	1.265	.029	.198	8.774
	1	1.068	1.192	1.000	-2.975	5.111
	2	.096	1.134	1.000	-3.751	3.943
	3	-1.927	1.117	.997	-5.715	1.862
	4	-.203	.818	1.000	-2.978	2.571
	6	1.169	.822	1.000	-1.619	3.958
	7	1.056	.976	1.000	-2.254	4.367
	8	2.593	1.077	.667	-1.057	6.244
	9	3.232	1.154	.300	-.682	7.145
6	10	3.949(*)	1.151	.043	.048	7.850
	11	4.486(*)	1.160	.009	.553	8.418
	12	4.282(*)	1.198	.026	.221	8.344
	1	-.102	1.209	1.000	-4.200	3.997
	2	-1.073	1.206	1.000	-5.162	3.015
	3	-3.096	1.221	.540	-7.237	1.045
	4	-1.373	1.029	1.000	-4.863	2.117
	5	-1.169	.822	1.000	-3.958	1.619
	7	-.113	.710	1.000	-2.521	2.295



7	8	1.424	.879	.999	-1.558	4.405
	9	2.062	.992	.925	-1.303	5.427
	10	2.780	1.044	.417	-.762	6.321
	11	3.316	1.043	.101	-.221	6.854
	12	3.113	1.044	.184	-.428	6.654
	1	.011	1.220	1.000	-4.125	4.148
	2	-.960	1.241	1.000	-5.167	3.246
	3	-2.983	1.263	.712	-7.264	1.298
	4	-1.260	1.086	1.000	-4.942	2.422
	5	-1.056	.976	1.000	-4.367	2.254
	6	.113	.710	1.000	-2.295	2.521
	8	1.537	.726	.904	-.924	3.998
8	9	2.175	.853	.525	-.718	5.068
	10	2.893	.933	.129	-.271	6.056
	11	3.429(*)	.955	.025	.190	6.668
	12	3.226(*)	.922	.034	.101	6.351
	1	-1.525	1.222	1.000	-5.667	2.616
	2	-2.497	1.233	.948	-6.679	1.685
	3	-4.520(*)	1.261	.025	-8.797	-.243
	4	-2.797	1.127	.595	-6.619	1.026
	5	-2.593	1.077	.667	-6.244	1.057
	6	-1.424	.879	.999	-4.405	1.558
	7	-1.537	.726	.904	-3.998	.924
	9	.638	.511	1.000	-1.094	2.371
9	10	1.356	.734	.989	-1.133	3.845
	11	1.893	.763	.595	-.695	4.480
	12	1.689	.779	.872	-.951	4.329
	1	-2.164	1.216	.995	-6.288	1.960
	2	-3.136	1.242	.549	-7.346	1.074
	3	-5.158(*)	1.275	.004	-9.482	-.834
	4	-3.435	1.133	.158	-7.276	.406
	5	-3.232	1.154	.300	-7.145	.682
	6	-2.062	.992	.925	-5.427	1.303

10	7	-2.175	.853	.525	-5.068	.718
	8	-.638	.511	1.000	-2.371	1.094
	10	.718	.610	1.000	-1.352	2.787
	11	1.254	.723	.997	-1.196	3.704
	12	1.051	.758	1.000	-1.518	3.620
	1	-2.881	1.223	.719	-7.030	1.267
	2	-3.853	1.244	.131	-8.073	.367
	3	-5.876(*)	1.295	.001	-10.267	-1.485
	4	-4.153(*)	1.148	.022	-8.046	-.259
	5	-3.949(*)	1.151	.043	-7.850	-.048
	6	-2.780	1.044	.417	-6.321	.762
	7	-2.893	.933	.129	-6.056	.271
11	8	-1.356	.734	.989	-3.845	1.133
	9	-.718	.610	1.000	-2.787	1.352
	11	.537	.441	1.000	-.959	2.032
	12	.333	.689	1.000	-2.003	2.670
	1	-3.418	1.233	.321	-7.598	.762
	2	-4.390(*)	1.265	.038	-8.679	-.101
	3	-6.412(*)	1.329	.000	-10.919	-1.906
	4	-4.689(*)	1.189	.006	-8.719	-.659
	5	-4.486(*)	1.160	.009	-8.418	-.553
	6	-3.316	1.043	.101	-6.854	.221
	7	-3.429(*)	.955	.025	-6.668	-.190
	8	-1.893	.763	.595	-4.480	.695
12	9	-1.254	.723	.997	-3.704	1.196
	10	-.537	.441	1.000	-2.032	.959
	12	-.203	.515	1.000	-1.950	1.543
	1	-3.215	1.286	.576	-7.576	1.147
	2	-4.186	1.318	.102	-8.657	.284
	3	-6.209(*)	1.398	.001	-10.948	-1.470
	4	-4.486(*)	1.265	.029	-8.774	-.198
	5	-4.282(*)	1.198	.026	-8.344	-.221
	6	-3.113	1.044	.184	-6.654	.428

High	1	7	-3.226(*)	.922	.034	-6.351	-.101
		8	-1.689	.779	.872	-4.329	.951
		9	-1.051	.758	1.000	-3.620	1.518
		10	-.333	.689	1.000	-2.670	2.003
		11	.203	.515	1.000	-1.543	1.950
		2	-2.557	.913	.299	-5.651	.538
		3	-3.080	1.303	.711	-7.496	1.337
		4	1.511	1.528	1.000	-3.670	6.693
		5	2.648	1.691	1.000	-3.086	8.382
		6	3.455	1.714	.951	-2.358	9.267
		7	2.841	1.730	.999	-3.025	8.707
		8	6.693(*)	1.732	.009	.819	12.567
	2	9	7.989(*)	1.725	.000	2.140	13.837
		10	11.034(*)	1.735	.000	5.151	16.917
		11	12.023(*)	1.748	.000	6.095	17.951
		12	9.364(*)	1.824	.000	3.178	15.549
		1	2.557	.913	.299	-.538	5.651
		3	-.523	.986	1.000	-3.867	2.821
		4	4.068	1.415	.247	-.730	8.866
		5	5.205	1.609	.084	-.251	10.660
		6	6.011(*)	1.710	.032	.214	11.809
		7	5.398	1.759	.142	-.568	11.363
		8	9.250(*)	1.749	.000	3.319	15.181
		9	10.545(*)	1.761	.000	4.575	16.516
	3	10	13.591(*)	1.765	.000	7.606	19.575
		11	14.580(*)	1.794	.000	8.497	20.663
		12	11.920(*)	1.870	.000	5.581	18.260
		1	3.080	1.303	.711	-1.337	7.496
		2	.523	.986	1.000	-2.821	3.867
		4	4.591(*)	1.254	.019	.337	8.844
		5	5.727(*)	1.585	.023	.354	11.100
		6	6.534(*)	1.732	.012	.661	12.407
		7	5.920	1.791	.067	-.151	11.992

4	8	9.773(*)	1.789	.000	3.707	15.838
	9	11.068(*)	1.809	.000	4.935	17.201
	10	14.114(*)	1.837	.000	7.886	20.341
	11	15.102(*)	1.885	.000	8.711	21.494
	12	12.443(*)	1.982	.000	5.723	19.164
	1	-1.511	1.528	1.000	-6.693	3.670
	2	-4.068	1.415	.247	-8.866	.730
	3	-4.591(*)	1.254	.019	-8.844	-.337
	5	1.136	1.160	1.000	-2.798	5.071
	6	1.943	1.460	1.000	-3.006	6.893
	7	1.330	1.540	1.000	-3.893	6.552
	8	5.182	1.599	.083	-.240	10.603
5	9	6.477(*)	1.607	.004	1.029	11.925
	10	9.523(*)	1.628	.000	4.001	15.044
	11	10.511(*)	1.686	.000	4.796	16.227
	12	7.852(*)	1.794	.001	1.771	13.934
	1	-2.648	1.691	1.000	-8.382	3.086
	2	-5.205	1.609	.084	-10.660	.251
	3	-5.727(*)	1.585	.023	-11.100	-.354
	4	-1.136	1.160	1.000	-5.071	2.798
	6	.807	1.166	1.000	-3.147	4.761
	7	.193	1.385	1.000	-4.501	4.888
	8	4.045	1.527	.428	-1.132	9.223
	9	5.341	1.637	.077	-.209	10.891
6	10	8.386(*)	1.632	.000	2.853	13.919
	11	9.375(*)	1.645	.000	3.798	14.952
	12	6.716(*)	1.699	.006	.956	12.475
	1	-3.455	1.714	.951	-9.267	2.358
	2	-6.011(*)	1.710	.032	-11.809	-.214
	3	-6.534(*)	1.732	.012	-12.407	-.661
	4	-1.943	1.460	1.000	-6.893	3.006
	5	-.807	1.166	1.000	-4.761	3.147
	7	-.614	1.007	1.000	-4.029	2.802

7	8	3.239	1.247	.478	-.990	7.467
	9	4.534	1.408	.088	-.238	9.307
	10	7.580(*)	1.481	.000	2.557	12.602
	11	8.568(*)	1.480	.000	3.551	13.585
	12	5.909(*)	1.481	.005	.887	10.931
	1	-2.841	1.730	.999	-8.707	3.025
	2	-5.398	1.759	.142	-11.363	.568
	3	-5.920	1.791	.067	-11.992	.151
	4	-1.330	1.540	1.000	-6.552	3.893
	5	-.193	1.385	1.000	-4.888	4.501
	6	.614	1.007	1.000	-2.802	4.029
	8	3.852(*)	1.029	.014	.362	7.343
8	9	5.148(*)	1.210	.002	1.045	9.251
	10	8.193(*)	1.323	.000	3.707	12.680
	11	9.182(*)	1.355	.000	4.588	13.775
	12	6.523(*)	1.307	.000	2.091	10.955
	1	-6.693(*)	1.732	.009	-12.567	-.819
	2	-9.250(*)	1.749	.000	-15.181	-3.319
	3	-9.773(*)	1.789	.000	-15.838	-3.707
	4	-5.182	1.599	.083	-10.603	.240
	5	-4.045	1.527	.428	-9.223	1.132
	6	-3.239	1.247	.478	-7.467	.990
	7	-3.852(*)	1.029	.014	-7.343	-.362
	9	1.295	.725	.994	-1.162	3.753
9	10	4.341(*)	1.041	.003	.811	7.871
	11	5.330(*)	1.082	.000	1.659	9.000
	12	2.670	1.104	.658	-1.074	6.415
	1	-7.989(*)	1.725	.000	-13.837	-2.140
	2	-10.545(*)	1.761	.000	-16.516	-4.575
	3	-11.068(*)	1.809	.000	-17.201	-4.935
	4	-6.477(*)	1.607	.004	-11.925	-1.029
	5	-5.341	1.637	.077	-10.891	.209
	6	-4.534	1.408	.088	-9.307	.238

10	7	-5.148(*)	1.210	.002	-9.251	-1.045
	8	-1.295	.725	.994	-3.753	1.162
	10	3.045(*)	.865	.032	.111	5.980
	11	4.034(*)	1.025	.007	.560	7.508
	12	1.375	1.075	1.000	-2.269	5.019
	1	-11.034(*)	1.735	.000	-16.917	-5.151
	2	-13.591(*)	1.765	.000	-19.575	-7.606
	3	-14.114(*)	1.837	.000	-20.341	-7.886
	4	-9.523(*)	1.628	.000	-15.044	-4.001
	5	-8.386(*)	1.632	.000	-13.919	-2.853
	6	-7.580(*)	1.481	.000	-12.602	-2.557
	7	-8.193(*)	1.323	.000	-12.680	-3.707
11	8	-4.341(*)	1.041	.003	-7.871	-.811
	9	-3.045(*)	.865	.032	-5.980	-.111
	11	.989	.625	1.000	-1.132	3.109
	12	-1.670	.977	.998	-4.984	1.643
	1	-12.023(*)	1.748	.000	-17.951	-6.095
	2	-14.580(*)	1.794	.000	-20.663	-8.497
	3	-15.102(*)	1.885	.000	-21.494	-8.711
	4	-10.511(*)	1.686	.000	-16.227	-4.796
	5	-9.375(*)	1.645	.000	-14.952	-3.798
	6	-8.568(*)	1.480	.000	-13.585	-3.551
	7	-9.182(*)	1.355	.000	-13.775	-4.588
	8	-5.330(*)	1.082	.000	-9.000	-1.659
12	9	-4.034(*)	1.025	.007	-7.508	-.560
	10	-.989	.625	1.000	-3.109	1.132
	12	-2.659(*)	.731	.021	-5.137	-.182
	1	-9.364(*)	1.824	.000	-15.549	-3.178
	2	-11.920(*)	1.870	.000	-18.260	-5.581
	3	-12.443(*)	1.982	.000	-19.164	-5.723
	4	-7.852(*)	1.794	.001	-13.934	-1.771
	5	-6.716(*)	1.699	.006	-12.475	-.956
	6	-5.909(*)	1.481	.005	-10.931	-.887

7	-6.523(*)	1.307	.000	-10.955	-2.091
8	-2.670	1.104	.658	-6.415	1.074
9	-1.375	1.075	1.000	-5.019	2.269
10	1.670	.977	.998	-1.643	4.984
11	2.659(*)	.731	.021	.182	5.137

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Net Income Level \* year

Estimates

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.409	1.710	43.046	49.772
	2	46.909	1.786	43.396	50.422
	3	46.295	2.001	42.359	50.232
	4	46.909	1.833	43.303	50.515
	5	47.830	1.849	44.193	51.466
	6	45.682	1.674	42.390	48.974
	7	45.375	1.727	41.979	48.771
	8	45.295	1.699	41.953	48.638
	9	45.205	1.732	41.798	48.612
	10	45.295	1.582	42.184	48.407
	11	45.602	1.586	42.484	48.721
	12	44.989	1.707	41.632	48.345

Medium	1	49.644	1.206	47.273	52.016
	2	50.616	1.259	48.139	53.093
	3	52.638	1.411	49.863	55.414
	4	50.915	1.293	48.373	53.458
	5	50.712	1.304	48.148	53.276
	6	49.542	1.180	47.221	51.864
	7	49.655	1.218	47.261	52.050
	8	48.119	1.198	45.762	50.475
	9	47.480	1.221	45.078	49.883
	10	46.763	1.115	44.569	48.957
	11	46.226	1.118	44.027	48.425
	12	46.429	1.203	44.063	48.796
High	1	58.784	1.710	55.421	62.147
	2	61.341	1.786	57.828	64.854
	3	61.864	2.001	57.927	65.800
	4	57.273	1.833	53.667	60.879
	5	56.136	1.849	52.500	59.773
	6	55.330	1.674	52.038	58.622
	7	55.943	1.727	52.547	59.339
	8	52.091	1.699	48.749	55.433
	9	50.795	1.732	47.388	54.202
	10	47.750	1.582	44.639	50.861
	11	46.761	1.586	43.643	49.880
	12	49.420	1.707	46.064	52.777

#### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	7507.491	2	3753.746	14.586	.000	.077	.999
	Error	90070.747	350	257.345				
2	Contrast	10250.937	2	5125.469	18.257	.000	.094	1.000



3	Error	98256.921	350	280.734				
	Contrast	10847.485	2	5423.742	15.385	.000	.081	.999
4	Error	123383.541	350	352.524				
	Contrast	4847.793	2	2423.897	8.194	.000	.045	.959
5	Error	103528.456	350	295.796				
	Contrast	3178.724	2	1589.362	5.283	.005	.029	.834
6	Error	105297.112	350	300.849				
	Contrast	4177.352	2	2088.676	8.472	.000	.046	.965
7	Error	86292.466	350	246.550				
	Contrast	5003.112	2	2501.556	9.533	.000	.052	.980
8	Error	91845.318	350	262.415				
	Contrast	2060.971	2	1030.486	4.055	.018	.023	.720
9	Error	88948.099	350	254.137				
	Contrast	1399.206	2	699.603	2.649	.072	.015	.525
10	Error	92426.817	350	264.077				
	Contrast	270.173	2	135.087	.613	.542	.003	.152
11	Error	77080.852	350	220.231				
	Contrast	59.286	2	29.643	.134	.875	.001	.071
12	Error	77446.029	350	221.274				
	Contrast	917.232	2	458.616	1.789	.169	.010	.374
	Error	89705.799	350	256.302				

Each F tests the simple effects of Net Income Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Net Income Level	(J) Net Income Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound

1	Low	Medium	-3.235	2.092	.325	-8.255	1.785
		High	-12.375(*)	2.418	.000	-18.177	-6.573
	Medium	Low	3.235	2.092	.325	-1.785	8.255
		High	-9.140(*)	2.092	.000	-14.160	-4.120
	High	Low	12.375(*)	2.418	.000	6.573	18.177
		Medium	9.140(*)	2.092	.000	4.120	14.160
2	Low	Medium	-3.707	2.185	.248	-8.950	1.537
		High	-14.432(*)	2.526	.000	-20.492	-8.372
	Medium	Low	3.707	2.185	.248	-1.537	8.950
		High	-10.725(*)	2.185	.000	-15.968	-5.482
	High	Low	14.432(*)	2.526	.000	8.372	20.492
		Medium	10.725(*)	2.185	.000	5.482	15.968
3	Low	Medium	-6.343(*)	2.449	.030	-12.219	-.467
		High	-15.568(*)	2.831	.000	-22.359	-8.777
	Medium	Low	6.343(*)	2.449	.030	.467	12.219
		High	-9.225(*)	2.449	.001	-15.101	-3.350
	High	Low	15.568(*)	2.831	.000	8.777	22.359
		Medium	9.225(*)	2.449	.001	3.350	15.101
4	Low	Medium	-4.006	2.243	.209	-9.388	1.376
		High	-10.364(*)	2.593	.000	-16.584	-4.143
	Medium	Low	4.006	2.243	.209	-1.376	9.388
		High	-6.357(*)	2.243	.015	-11.740	-.975
	High	Low	10.364(*)	2.593	.000	4.143	16.584
		Medium	6.357(*)	2.243	.015	.975	11.740
5	Low	Medium	-2.882	2.262	.495	-8.310	2.546
		High	-8.307(*)	2.615	.005	-14.580	-2.033
	Medium	Low	2.882	2.262	.495	-2.546	8.310
		High	-5.424	2.262	.050	-10.852	.003
	High	Low	8.307(*)	2.615	.005	2.033	14.580
		Medium	5.424	2.262	.050	-.003	10.852
6	Low	Medium	-3.861	2.048	.170	-8.774	1.053
		High	-9.648(*)	2.367	.000	-15.327	-3.968
	Medium	Low	3.861	2.048	.170	-1.053	8.774
		High	-5.787(*)	2.048	.015	-10.701	-.873
	High	Low	9.648(*)	2.367	.000	3.968	15.327
		Medium					

7	Low	Medium	5.787(*)	2.048	.015	.873	10.701
		Medium	-4.280	2.113	.125	-9.350	.789
		High	-10.568(*)	2.442	.000	-16.427	-4.709
	Medium	Low	4.280	2.113	.125	-.789	9.350
		High	-6.288(*)	2.113	.009	-11.357	-1.218
	High	Low	10.568(*)	2.442	.000	4.709	16.427
8	Low	Medium	6.288(*)	2.113	.009	1.218	11.357
		Medium	-2.823	2.079	.439	-7.812	2.166
		High	-6.795(*)	2.403	.015	-12.561	-1.029
	Medium	Low	2.823	2.079	.439	-2.166	7.812
		High	-3.972	2.079	.161	-8.961	1.017
	High	Low	6.795(*)	2.403	.015	1.029	12.561
9	Low	Medium	3.972	2.079	.161	-1.017	8.961
		Medium	-2.276	2.120	.633	-7.361	2.810
		High	-5.591	2.450	.068	-11.469	.287
	Medium	Low	2.276	2.120	.633	-2.810	7.361
		High	-3.315	2.120	.316	-8.401	1.770
	High	Low	5.591	2.450	.068	-.287	11.469
10	Low	Medium	3.315	2.120	.316	-1.770	8.401
		Medium	-1.467	1.936	.833	-6.111	3.177
		High	-2.455	2.237	.616	-7.822	2.913
	Medium	Low	1.467	1.936	.833	-3.177	6.111
		High	-.987	1.936	.941	-5.631	3.657
	High	Low	2.455	2.237	.616	-2.913	7.822
11	Low	Medium	.987	1.936	.941	-3.657	5.631
		Medium	-.624	1.940	.984	-5.279	4.031
		High	-1.159	2.243	.939	-6.539	4.221
	Medium	Low	.624	1.940	.984	-4.031	5.279
		High	-.535	1.940	.990	-5.190	4.120
	High	Low	1.159	2.243	.939	-4.221	6.539
12	Low	Medium	.535	1.940	.990	-4.120	5.190
		Medium	-1.441	2.088	.868	-6.451	3.569
		High	-4.432	2.414	.188	-10.222	1.359
	Medium	Low	1.441	2.088	.868	-3.569	6.451
		High	-2.991	2.088	.392	-8.001	2.019

High	Low	4.432	2.414	.188	-1.359	10.222
	Medium	2.991	2.088	.392	-2.019	8.001

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Net Income Level 1	Low	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	397.306	1	397.306	2.410	.124	.027	.336
	Quadratic	3.642	1	3.642	.029	.866	.000	.053
	Cubic	86.061	1	86.061	1.855	.177	.021	.270

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Net Income Level 2	Medium	177

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6138.191	1	6138.191	16.337	.000	.085	.980
	Quadratic	626.781	1	626.781	4.114	.044	.023	.523

Cubic	934.136	1	934.136	9.891	.002	.053	.879
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a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Net Income Level 3	High	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	21856.774	1	21856.774	28.542	.000	.247	1.000
	Quadratic	83.680	1	83.680	.377	.541	.004	.093
	Cubic	1206.096	1	1206.096	6.596	.012	.070	.719

a. Computed using alpha = .05

### *General Linear Model of Level of Net Income for Diversity*

#### Between-Subjects Factors

	Value Label	N
Net Income Level 1	Low	88
2	Medium	177
3	High	88

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	54311.937	11	4937.449	59.906	.000	.146	1.000
	Greenhouse-Geisser	54311.937	4.293	12652.054	59.906	.000	.146	1.000
	Huynh-Feldt	54311.937	4.378	12407.047	59.906	.000	.146	1.000
	Lower-bound	54311.937	1.000	54311.937	59.906	.000	.146	1.000
year * nilevel	Sphericity Assumed	6439.057	22	292.684	3.551	.000	.020	1.000
	Greenhouse-Geisser	6439.057	8.585	749.994	3.551	.000	.020	.988
	Huynh-Feldt	6439.057	8.755	735.471	3.551	.000	.020	.990
	Lower-bound	6439.057	2.000	3219.528	3.551	.030	.020	.658
Error(year)	Sphericity Assumed	317316.840	3850	82.420				
	Greenhouse-Geisser	317316.840	1502.458	211.198				
	Huynh-Feldt	317316.840	1532.128	207.109				
	Lower-bound	317316.840	350.000	906.620				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	52159.238	1	52159.238	150.639	.000	.301	1.000
	Quadratic	1542.810	1	1542.810	9.390	.002	.026	.863
	Cubic	150.851	1	150.851	2.100	.148	.006	.304
year * nilevel	Linear	5007.919	2	2503.960	7.232	.001	.040	.934
	Quadratic	441.121	2	220.561	1.342	.263	.008	.289
	Cubic	199.799	2	99.899	1.390	.250	.008	.298
Error(year)	Linear	121188.401	350	346.253				
	Quadratic	57504.181	350	164.298				
	Cubic	25147.671	350	71.850				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	110975.567	2	55487.784	29.972	.000	.146	1.000
Error	647969.606	350	1851.342				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

#### Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	47.125	1.324	44.521	49.729
Medium	47.147	.934	45.311	48.984
High	58.972	1.324	56.367	61.576

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Net Income Level	(J) Net Income Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

Low	Medium	-.022	1.620	1.000	-3.909	3.865
	High	-11.847(*)	1.873	.000	-16.339	-7.354
Medium	Low	.022	1.620	1.000	-3.865	3.909
	High	-11.824(*)	1.620	.000	-15.711	-7.937
High	Low	11.847(*)	1.873	.000	7.354	16.339
	Medium	11.824(*)	1.620	.000	7.937	15.711

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	9247.964	2	4623.982	29.972	.000	.146	1.000
Error	53997.467	350	154.278				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.676	.500	43.693	45.659
2	45.445	.563	44.338	46.552
3	46.408	.638	45.154	47.663
4	49.141	.781	47.605	50.677
5	50.177	.802	48.600	51.754
6	51.232	.867	49.527	52.937
7	52.357	.901	50.584	54.130



8	53.102	.939	51.255	54.948
9	54.167	.997	52.206	56.128
10	55.125	1.008	53.143	57.107
11	55.755	1.020	53.749	57.761
12	55.391	.987	53.449	57.333

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.769	.245	.115	-1.601	.062
	3	-1.732(*)	.393	.001	-3.066	-.399
	4	-4.465(*)	.594	.000	-6.478	-2.452
	5	-5.501(*)	.628	.000	-7.630	-3.373
	6	-6.556(*)	.750	.000	-9.100	-4.012
	7	-7.682(*)	.797	.000	-10.383	-4.980
	8	-8.426(*)	.830	.000	-11.239	-5.613
	9	-9.491(*)	.897	.000	-12.531	-6.451
	10	-10.449(*)	.893	.000	-13.476	-7.422
	11	-11.080(*)	.897	.000	-14.121	-8.038
	12	-10.715(*)	.874	.000	-13.679	-7.752
2	1	.769	.245	.115	-.062	1.601
	3	-.963	.314	.140	-2.026	.100
	4	-3.696(*)	.553	.000	-5.572	-1.820
	5	-4.732(*)	.594	.000	-6.747	-2.717
	6	-5.787(*)	.703	.000	-8.171	-3.404
	7	-6.912(*)	.744	.000	-9.436	-4.388
	8	-7.657(*)	.770	.000	-10.268	-5.046
	9	-8.722(*)	.849	.000	-11.599	-5.845
	10	-9.680(*)	.842	.000	-12.536	-6.824

3	11	-10.310(*)	.846	.000	-13.180	-7.440
	12	-9.946(*)	.828	.000	-12.754	-7.138
	1	1.732(*)	.393	.001	.399	3.066
	2	.963	.314	.140	-.100	2.026
	4	-2.733(*)	.501	.000	-4.430	-1.035
	5	-3.769(*)	.580	.000	-5.734	-1.803
	6	-4.824(*)	.705	.000	-7.214	-2.434
	7	-5.949(*)	.750	.000	-8.492	-3.406
	8	-6.693(*)	.747	.000	-9.226	-4.161
	9	-7.759(*)	.829	.000	-10.571	-4.947
	10	-8.717(*)	.838	.000	-11.558	-5.875
	11	-9.347(*)	.824	.000	-12.140	-6.554
4	12	-8.983(*)	.812	.000	-11.736	-6.230
	1	4.465(*)	.594	.000	2.452	6.478
	2	3.696(*)	.553	.000	1.820	5.572
	3	2.733(*)	.501	.000	1.035	4.430
	5	-1.036	.463	.823	-2.606	.534
	6	-2.091	.635	.070	-4.245	.062
	7	-3.217(*)	.735	.001	-5.708	-.725
	8	-3.961(*)	.727	.000	-6.426	-1.496
	9	-5.026(*)	.815	.000	-7.788	-2.264
	10	-5.984(*)	.859	.000	-8.898	-3.071
	11	-6.615(*)	.869	.000	-9.561	-3.668
	12	-6.250(*)	.849	.000	-9.130	-3.370
5	1	5.501(*)	.628	.000	3.373	7.630
	2	4.732(*)	.594	.000	2.717	6.747
	3	3.769(*)	.580	.000	1.803	5.734
	4	1.036	.463	.823	-.534	2.606
	6	-1.055	.508	.925	-2.778	.667
	7	-2.180(*)	.635	.043	-4.332	-.029
	8	-2.925(*)	.665	.001	-5.178	-.672
	9	-3.990(*)	.741	.000	-6.501	-1.479
	10	-4.948(*)	.823	.000	-7.739	-2.157

6	11	-5.578(*)	.840	.000	-8.426	-2.731
	12	-5.214(*)	.814	.000	-7.975	-2.453
	1	6.556(*)	.750	.000	4.012	9.100
	2	5.787(*)	.703	.000	3.404	8.171
	3	4.824(*)	.705	.000	2.434	7.214
	4	2.091	.635	.070	-.062	4.245
	5	1.055	.508	.925	-.667	2.778
	7	-1.125	.477	.714	-2.742	.491
	8	-1.870	.620	.167	-3.973	.234
	9	-2.935(*)	.763	.009	-5.522	-.348
	10	-3.893(*)	.864	.001	-6.823	-.962
	11	-4.523(*)	.898	.000	-7.568	-1.479
7	12	-4.159(*)	.849	.000	-7.037	-1.281
	1	7.682(*)	.797	.000	4.980	10.383
	2	6.912(*)	.744	.000	4.388	9.436
	3	5.949(*)	.750	.000	3.406	8.492
	4	3.217(*)	.735	.001	.725	5.708
	5	2.180(*)	.635	.043	.029	4.332
	6	1.125	.477	.714	-.491	2.742
	8	-.744	.492	1.000	-2.413	.925
	9	-1.810	.679	.414	-4.112	.493
	10	-2.768(*)	.796	.037	-5.467	-.068
	11	-3.398(*)	.841	.004	-6.250	-.545
	12	-3.034(*)	.792	.010	-5.718	-.349
8	1	8.426(*)	.830	.000	5.613	11.239
	2	7.657(*)	.770	.000	5.046	10.268
	3	6.693(*)	.747	.000	4.161	9.226
	4	3.961(*)	.727	.000	1.496	6.426
	5	2.925(*)	.665	.001	.672	5.178
	6	1.870	.620	.167	-.234	3.973
	7	.744	.492	1.000	-.925	2.413
	9	-1.065	.518	.935	-2.822	.691
	10	-2.023	.680	.186	-4.327	.281

9	11	-2.654(*)	.730	.021	-5.130	-.178
	12	-2.289	.714	.093	-4.711	.132
	1	9.491(*)	.897	.000	6.451	12.531
	2	8.722(*)	.849	.000	5.845	11.599
	3	7.759(*)	.829	.000	4.947	10.571
	4	5.026(*)	.815	.000	2.264	7.788
	5	3.990(*)	.741	.000	1.479	6.501
	6	2.935(*)	.763	.009	.348	5.522
	7	1.810	.679	.414	-.493	4.112
	8	1.065	.518	.935	-.691	2.822
	10	-.958	.563	.998	-2.867	.951
	11	-1.588	.683	.747	-3.903	.727
10	12	-1.224	.650	.984	-3.428	.980
	1	10.449(*)	.893	.000	7.422	13.476
	2	9.680(*)	.842	.000	6.824	12.536
	3	8.717(*)	.838	.000	5.875	11.558
	4	5.984(*)	.859	.000	3.071	8.898
	5	4.948(*)	.823	.000	2.157	7.739
	6	3.893(*)	.864	.001	.962	6.823
	7	2.768(*)	.796	.037	.068	5.467
	8	2.023	.680	.186	-.281	4.327
	9	.958	.563	.998	-.951	2.867
	11	-.630	.479	1.000	-2.255	.994
	12	-.266	.580	1.000	-2.232	1.700
11	1	11.080(*)	.897	.000	8.038	14.121
	2	10.310(*)	.846	.000	7.440	13.180
	3	9.347(*)	.824	.000	6.554	12.140
	4	6.615(*)	.869	.000	3.668	9.561
	5	5.578(*)	.840	.000	2.731	8.426
	6	4.523(*)	.898	.000	1.479	7.568
	7	3.398(*)	.841	.004	.545	6.250
	8	2.654(*)	.730	.021	.178	5.130
	9	1.588	.683	.747	-.727	3.903

12	10	.630	.479	1.000	-.994	2.255
	12	.364	.421	1.000	-1.062	1.790
	1	10.715(*)	.874	.000	7.752	13.679
	2	9.946(*)	.828	.000	7.138	12.754
	3	8.983(*)	.812	.000	6.230	11.736
	4	6.250(*)	.849	.000	3.370	9.130
	5	5.214(*)	.814	.000	2.453	7.975
	6	4.159(*)	.849	.000	1.281	7.037
	7	3.034(*)	.792	.010	.349	5.718
	8	2.289	.714	.093	-.132	4.711
	9	1.224	.650	.984	-.980	3.428
	10	.266	.580	1.000	-1.700	2.232
	11	-.364	.421	1.000	-1.790	1.062

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	42.852	.949	40.986	44.719
	2	42.739	1.069	40.636	44.841
	3	43.818	1.211	41.436	46.200
	4	44.727	1.483	41.811	47.643
	5	45.705	1.522	42.710	48.699
	6	47.159	1.646	43.923	50.396
	7	47.455	1.711	44.089	50.820
	8	48.432	1.782	44.927	51.937

Medium	9	50.250	1.892	46.528	53.972
	10	51.250	1.913	47.488	55.012
	11	50.761	1.936	46.953	54.570
	12	50.352	1.874	46.666	54.038
	1	42.209	.669	40.893	43.525
	2	43.040	.754	41.557	44.522
	3	43.463	.854	41.784	45.143
	4	45.695	1.045	43.639	47.751
	5	46.633	1.073	44.522	48.744
	6	46.435	1.160	44.153	48.717
	7	48.333	1.207	45.960	50.706
	8	49.328	1.257	46.856	51.799
High	9	49.842	1.334	47.217	52.466
	10	50.011	1.349	47.359	52.664
	11	50.232	1.365	47.546	52.917
	12	50.548	1.322	47.949	53.147
	1	48.966	.949	47.099	50.832
	2	50.557	1.069	48.455	52.659
	3	51.943	1.211	49.561	54.325
	4	57.000	1.483	54.084	59.916
	5	58.193	1.522	55.199	61.187
	6	60.102	1.646	56.866	63.339
	7	61.284	1.711	57.918	64.650
	8	61.545	1.782	58.040	65.050
	9	62.409	1.892	58.687	66.131
	10	64.114	1.913	60.352	67.876
	11	66.273	1.936	62.464	70.081
	12	65.273	1.874	61.587	68.959

***General Linear Model of Level of Net Income for Employee Relations***

### Between-Subjects Factors

		Value Label	N
Net Income Level	1	Low	88
	2	Medium	177
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	9891.429	11	899.221	8.250	.000	.023	1.000
	Greenhouse-Geisser	9891.429	3.894	2540.496	8.250	.000	.023	.998
	Huynh-Feldt	9891.429	3.965	2494.514	8.250	.000	.023	.999
	Lower-bound	9891.429	1.000	9891.429	8.250	.004	.023	.817
year * nilevel	Sphericity Assumed	1520.321	22	69.106	.634	.903	.004	.545
	Greenhouse-Geisser	1520.321	7.787	195.238	.634	.745	.004	.295
	Huynh-Feldt	1520.321	7.931	191.705	.634	.748	.004	.298
	Lower-bound	1520.321	2.000	760.161	.634	.531	.004	.156
Error(year)	Sphericity Assumed	419648.882	3850	109.000				
	Greenhouse-Geisser	419648.882	1362.726	307.948				
	Huynh-Feldt	419648.882	1387.846	302.374				
	Lower-bound	419648.882	350.000	1198.997				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	5455.762	1	5455.762	10.841	.001	.030	.907

year * nilevel	Quadratic	3713.255	1	3713.255	18.826	.000	.051	.991
	Cubic	15.296	1	15.296	.127	.722	.000	.065
	Linear	853.330	2	426.665	.848	.429	.005	.195
	Quadratic	238.880	2	119.440	.606	.546	.003	.151
	Cubic	95.638	2	47.819	.398	.672	.002	.114
Error(year)	Linear	176146.185	350	503.275				
	Quadratic	69033.802	350	197.239				
	Cubic	42082.384	350	120.235				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	2013.799	2	1006.899	.482	.618	.003	.129
Error	731688.840	350	2090.540				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

#### Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	48.825	1.407	46.058	51.592
Medium	50.088	.992	48.136	52.039
High	50.727	1.407	47.960	53.495



### Pairwise Comparisons

Measure: MEASURE\_1

(I) Net Income Level	(J) Net Income Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.263	1.722	.846	-5.393	2.868
	High	-1.902	1.990	.712	-6.676	2.872
Medium	Low	1.263	1.722	.846	-2.868	5.393
	High	-.640	1.722	.976	-4.770	3.491
High	Low	1.902	1.990	.712	-2.872	6.676
	Medium	.640	1.722	.976	-3.491	4.770

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	167.817	2	83.908	.482	.618	.003	.129
Error	60974.070	350	174.212				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
1	45.812	.683	44.469	47.155
2	47.960	.781	46.423	49.497
3	48.609	.820	46.996	50.223
4	50.001	.871	48.287	51.714
5	50.755	.913	48.959	52.551
6	49.865	.890	48.114	51.616
7	50.810	.963	48.916	52.705
8	51.359	1.038	49.318	53.400
9	51.161	1.026	49.143	53.179
10	51.716	1.026	49.697	53.734
11	50.580	1.018	48.578	52.581
12	49.931	1.044	47.879	51.984

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-2.148(*)	.531	.004	-3.950	-.346
	3	-2.797(*)	.622	.001	-4.908	-.687
	4	-4.189(*)	.819	.000	-6.964	-1.413
	5	-4.943(*)	.824	.000	-7.739	-2.148
	6	-4.053(*)	.812	.000	-6.808	-1.298
	7	-4.999(*)	.873	.000	-7.958	-2.039
	8	-5.547(*)	.972	.000	-8.843	-2.251
	9	-5.349(*)	.964	.000	-8.616	-2.082
	10	-5.904(*)	1.028	.000	-9.391	-2.417
	11	-4.768(*)	1.038	.000	-8.286	-1.249
	12	-4.120(*)	1.062	.008	-7.721	-.518
2	1	2.148(*)	.531	.004	.346	3.950

3	3	-.650	.487	1.000	-2.301	1.002
	4	-2.041	.748	.359	-4.579	.497
	5	-2.795(*)	.787	.028	-5.465	-.126
	6	-1.905	.805	.707	-4.634	.823
	7	-2.851	.868	.072	-5.794	.093
	8	-3.399(*)	.964	.031	-6.667	-.131
	9	-3.201	.961	.061	-6.459	.057
	10	-3.756(*)	1.021	.018	-7.218	-.294
	11	-2.620	1.035	.544	-6.130	.890
	12	-1.972	1.062	.987	-5.572	1.629
	1	2.797(*)	.622	.001	.687	4.908
	2	.650	.487	1.000	-1.002	2.301
4	4	-1.391	.609	.782	-3.455	.672
	5	-2.146	.745	.244	-4.673	.381
	6	-1.256	.801	1.000	-3.970	1.459
	7	-2.201	.840	.457	-5.050	.648
	8	-2.750	.926	.191	-5.891	.392
	9	-2.552	.912	.301	-5.643	.539
	10	-3.106	.952	.077	-6.335	.123
	11	-1.970	.969	.944	-5.256	1.316
	12	-1.322	.994	1.000	-4.692	2.048
	1	4.189(*)	.819	.000	1.413	6.964
	2	2.041	.748	.359	-.497	4.579
	3	1.391	.609	.782	-.672	3.455
5	5	-.754	.560	1.000	-2.652	1.143
	6	.136	.781	1.000	-2.513	2.785
	7	-.810	.828	1.000	-3.617	1.998
	8	-1.358	.920	1.000	-4.476	1.760
	9	-1.160	.920	1.000	-4.280	1.959
	10	-1.715	.988	.997	-5.064	1.634
	11	-.579	1.000	1.000	-3.969	2.811
	12	.069	1.026	1.000	-3.409	3.547
	1	4.943(*)	.824	.000	2.148	7.739

6	2	2.795(*)	.787	.028	.126	5.465
	3	2.146	.745	.244	-.381	4.673
	4	.754	.560	1.000	-1.143	2.652
	6	.890	.651	1.000	-1.316	3.096
	7	-.055	.766	1.000	-2.651	2.541
	8	-.604	.913	1.000	-3.700	2.493
	9	-.406	.905	1.000	-3.474	2.662
	10	-.960	1.012	1.000	-4.391	2.470
	11	.176	1.040	1.000	-3.351	3.702
	12	.824	1.079	1.000	-2.834	4.482
	1	4.053(*)	.812	.000	1.298	6.808
	2	1.905	.805	.707	-.823	4.634
7	3	1.256	.801	1.000	-1.459	3.970
	4	-.136	.781	1.000	-2.785	2.513
	5	-.890	.651	1.000	-3.096	1.316
	7	-.945	.465	.945	-2.523	.633
	8	-1.494	.669	.826	-3.761	.774
	9	-1.296	.718	.993	-3.731	1.139
	10	-1.851	.849	.866	-4.730	1.029
	11	-.714	.906	1.000	-3.786	2.357
	12	-.066	.939	1.000	-3.250	3.117
	1	4.999(*)	.873	.000	2.039	7.958
	2	2.851	.868	.072	-.093	5.794
	3	2.201	.840	.457	-.648	5.050
8	4	.810	.828	1.000	-1.998	3.617
	5	.055	.766	1.000	-2.541	2.651
	6	.945	.465	.945	-.633	2.523
	8	-.549	.525	1.000	-2.330	1.233
	9	-.351	.614	1.000	-2.433	1.732
	10	-.905	.781	1.000	-3.554	1.744
	11	.231	.850	1.000	-2.653	3.114
	12	.879	.898	1.000	-2.167	3.925
	1	5.547(*)	.972	.000	2.251	8.843

9	2	3.399(*)	.964	.031	.131	6.667
	3	2.750	.926	.191	-.392	5.891
	4	1.358	.920	1.000	-1.760	4.476
	5	.604	.913	1.000	-2.493	3.700
	6	1.494	.669	.826	-.774	3.761
	7	.549	.525	1.000	-1.233	2.330
	9	.198	.421	1.000	-1.231	1.627
	10	-.357	.642	1.000	-2.533	1.820
	11	.779	.718	1.000	-1.657	3.215
	12	1.428	.776	.989	-1.204	4.059
	1	5.349(*)	.964	.000	2.082	8.616
	2	3.201	.961	.061	-.057	6.459
10	3	2.552	.912	.301	-.539	5.643
	4	1.160	.920	1.000	-1.959	4.280
	5	.406	.905	1.000	-2.662	3.474
	6	1.296	.718	.993	-1.139	3.731
	7	.351	.614	1.000	-1.732	2.433
	8	-.198	.421	1.000	-1.627	1.231
	10	-.555	.542	1.000	-2.391	1.282
	11	.581	.645	1.000	-1.607	2.770
	12	1.230	.711	.997	-1.181	3.640
	1	5.904(*)	1.028	.000	2.417	9.391
	2	3.756(*)	1.021	.018	.294	7.218
	3	3.106	.952	.077	-.123	6.335
11	4	1.715	.988	.997	-1.634	5.064
	5	.960	1.012	1.000	-2.470	4.391
	6	1.851	.849	.866	-1.029	4.730
	7	.905	.781	1.000	-1.744	3.554
	8	.357	.642	1.000	-1.820	2.533
	9	.555	.542	1.000	-1.282	2.391
	11	1.136	.388	.214	-.180	2.452
	12	1.784(*)	.495	.023	.107	3.462
	1	4.768(*)	1.038	.000	1.249	8.286

12	2	2.620	1.035	.544	-.890	6.130
	3	1.970	.969	.944	-1.316	5.256
	4	.579	1.000	1.000	-2.811	3.969
	5	-.176	1.040	1.000	-3.702	3.351
	6	.714	.906	1.000	-2.357	3.786
	7	-.231	.850	1.000	-3.114	2.653
	8	-.779	.718	1.000	-3.215	1.657
	9	-.581	.645	1.000	-2.770	1.607
	10	-1.136	.388	.214	-2.452	.180
	12	.648	.320	.948	-.438	1.734
	1	4.120(*)	1.062	.008	.518	7.721
	2	1.972	1.062	.987	-1.629	5.572
	3	1.322	.994	1.000	-2.048	4.692
	4	-.069	1.026	1.000	-3.547	3.409
	5	-.824	1.079	1.000	-4.482	2.834
	6	.066	.939	1.000	-3.117	3.250
	7	-.879	.898	1.000	-3.925	2.167
	8	-1.428	.776	.989	-4.059	1.204
	9	-1.230	.711	.997	-3.640	1.181
	10	-1.784(*)	.495	.023	-3.462	-.107
	11	-.648	.320	.948	-1.734	.438

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.273	1.296	43.723	48.823
	2	48.364	1.484	45.446	51.281
	3	48.000	1.557	44.937	51.063
	4	49.636	1.654	46.383	52.890

Medium	5	49.727	1.734	46.318	53.137
	6	48.182	1.691	44.857	51.507
	7	49.023	1.829	45.426	52.619
	8	49.205	1.970	45.330	53.080
	9	50.023	1.948	46.192	53.854
	10	50.557	1.948	46.725	54.389
	11	48.909	1.932	45.109	52.710
	12	48.000	1.981	44.103	51.897
	1	45.345	.914	43.547	47.143
	2	47.243	1.046	45.186	49.300
	3	48.282	1.098	46.123	50.442
	4	49.638	1.166	47.345	51.932
	5	51.266	1.222	48.861	53.670
	6	50.232	1.192	47.887	52.576
	7	51.136	1.289	48.600	53.671
	8	52.508	1.389	49.776	55.241
	9	52.006	1.373	49.304	54.707
	10	52.136	1.374	49.434	54.837
	11	51.011	1.363	48.332	53.691
	12	50.249	1.397	47.501	52.996
High	1	45.818	1.296	43.268	48.368
	2	48.273	1.484	45.355	51.191
	3	49.545	1.557	46.483	52.608
	4	50.727	1.654	47.474	53.981
	5	51.273	1.734	47.863	54.682
	6	51.182	1.691	47.857	54.507
	7	52.273	1.829	48.676	55.869
	8	52.364	1.970	48.489	56.239
	9	51.455	1.948	47.623	55.286
	10	52.455	1.948	48.623	56.286
	11	51.818	1.932	48.018	55.619
	12	51.545	1.981	47.649	55.442

## General Linear Model of Level of Net Income for Environment

### Between-Subjects Factors

		Value Label	N
Net Income Level	1	Low	88
	2	Medium	177
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2817.106	11	256.101	3.070	.000	.009	.991
	Greenhouse-Geisser	2817.106	4.985	565.132	3.070	.009	.009	.873
	Huynh-Feldt	2817.106	5.094	552.978	3.070	.009	.009	.879
	Lower-bound	2817.106	1.000	2817.106	3.070	.081	.009	.416
year * nilevel	Sphericity Assumed	2465.379	22	112.063	1.343	.131	.008	.929
	Greenhouse-Geisser	2465.379	9.970	247.287	1.343	.202	.008	.697
	Huynh-Feldt	2465.379	10.189	241.968	1.343	.200	.008	.705
	Lower-bound	2465.379	2.000	1232.689	1.343	.262	.008	.289
Error(year)	Sphericity Assumed	321194.933	3850	83.427				
	Greenhouse-Geisser	321194.933	1744.701	184.097				
	Huynh-Feldt	321194.933	1783.050	180.138				
	Lower-bound	321194.933	350.000	917.700				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts



Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	288.812	1	288.812	.980	.323	.003	.167
	Quadratic	2.805	1	2.805	.017	.896	.000	.052
	Cubic	639.807	1	639.807	5.413	.021	.015	.641
year * nilevel	Linear	848.966	2	424.483	1.440	.238	.008	.308
	Quadratic	389.243	2	194.622	1.180	.309	.007	.258
	Cubic	27.675	2	13.838	.117	.890	.001	.068
Error(year)	Linear	103196.611	350	294.847				
	Quadratic	57743.565	350	164.982				
	Cubic	41368.775	350	118.196				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	57725.493	2	28862.746	12.420	.000	.066	.996
Error	813331.821	350	2323.805				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	55.713	1.483	52.796	58.631
Medium	49.702	1.046	47.644	51.759
High	45.321	1.483	42.403	48.239

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Net Income Level	(J) Net Income Level				Upper Bound	Lower Bound
Low	Medium	6.012(*)	1.815	.003	1.657	10.366
	High	10.392(*)	2.098	.000	5.359	15.425
Medium	Low	-6.012(*)	1.815	.003	-10.366	-1.657
	High	4.380(*)	1.815	.048	.026	8.735
High	Low	-10.392(*)	2.098	.000	-15.425	-5.359
	Medium	-4.380(*)	1.815	.048	-8.735	-.026

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	4810.458	2	2405.229	12.420	.000	.066	.996
Error	67777.652	350	193.650				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.942	.788	49.391	52.493
2	49.555	.852	47.880	51.231
3	49.138	.914	47.342	50.935
4	48.786	.937	46.943	50.629
5	49.573	.904	47.796	51.351
6	50.932	.937	49.088	52.775
7	51.501	.993	49.547	53.455
8	50.997	.989	49.051	52.942
9	50.637	.954	48.760	52.514
10	50.454	.934	48.616	52.292
11	49.406	.964	47.511	51.302
12	51.020	.887	49.275	52.766

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	1.387	.558	.592	-.506	3.280
	3	1.804	.674	.402	-.480	4.088
	4	2.156	.732	.204	-.327	4.639
	5	1.369	.757	.993	-1.198	3.936
	6	.011	.765	1.000	-2.584	2.605
	7	-.559	.791	1.000	-3.240	2.122
	8	-.055	.817	1.000	-2.825	2.716

2	9	.305	.854	1.000	-2.592	3.202
	10	.488	.792	1.000	-2.197	3.174
	11	1.536	.878	.996	-1.440	4.511
	12	-.078	.861	1.000	-2.996	2.840
	1	-1.387	.558	.592	-3.280	.506
	3	.417	.472	1.000	-1.184	2.018
	4	.769	.627	1.000	-1.356	2.895
	5	-.018	.694	1.000	-2.370	2.334
	6	-1.376	.782	.996	-4.027	1.275
	7	-1.946	.808	.667	-4.685	.793
	8	-1.441	.839	.997	-4.285	1.402
	9	-1.082	.849	1.000	-3.961	1.798
3	10	-.899	.787	1.000	-3.568	1.771
	11	.149	.843	1.000	-2.708	3.006
	12	-1.465	.852	.997	-4.353	1.423
	1	-1.804	.674	.402	-4.088	.480
	2	-.417	.472	1.000	-2.018	1.184
	4	.352	.587	1.000	-1.639	2.344
	5	-.435	.701	1.000	-2.813	1.943
	6	-1.793	.780	.770	-4.436	.850
	7	-2.363	.817	.236	-5.133	.407
	8	-1.858	.831	.823	-4.675	.958
	9	-1.499	.845	.995	-4.364	1.367
	10	-1.316	.804	.999	-4.040	1.409
4	11	-.268	.904	1.000	-3.333	2.797
	12	-1.882	.907	.926	-4.956	1.192
	1	-2.156	.732	.204	-4.639	.327
	2	-.769	.627	1.000	-2.895	1.356
	3	-.352	.587	1.000	-2.344	1.639
	5	-.788	.521	1.000	-2.553	.978
	6	-2.146	.730	.207	-4.621	.330
	7	-2.715	.805	.053	-5.445	.014
	8	-2.211	.834	.426	-5.037	.616

5	9	-1.851	.840	.848	-4.699	.997
	10	-1.668	.825	.949	-4.467	1.131
	11	-.620	.910	1.000	-3.704	2.463
	12	-2.234	.907	.611	-5.308	.840
	1	-1.369	.757	.993	-3.936	1.198
	2	.018	.694	1.000	-2.334	2.370
	3	.435	.701	1.000	-1.943	2.813
	4	.788	.521	1.000	-.978	2.553
	6	-1.358	.598	.794	-3.384	.668
	7	-1.928	.675	.261	-4.218	.362
	8	-1.423	.731	.971	-3.900	1.054
	9	-1.063	.723	1.000	-3.515	1.388
6	10	-.881	.724	1.000	-3.336	1.575
	11	.167	.776	1.000	-2.463	2.797
	12	-1.447	.794	.991	-4.139	1.245
	1	-.011	.765	1.000	-2.605	2.584
	2	1.376	.782	.996	-1.275	4.027
	3	1.793	.780	.770	-.850	4.436
	4	2.146	.730	.207	-.330	4.621
	5	1.358	.598	.794	-.668	3.384
	7	-.570	.382	1.000	-1.864	.724
	8	-.065	.518	1.000	-1.823	1.693
	9	.295	.570	1.000	-1.639	2.229
	10	.478	.615	1.000	-1.607	2.563
7	11	1.525	.772	.963	-1.091	4.142
	12	-.089	.786	1.000	-2.753	2.576
	1	.559	.791	1.000	-2.122	3.240
	2	1.946	.808	.667	-.793	4.685
	3	2.363	.817	.236	-.407	5.133
	4	2.715	.805	.053	-.014	5.445
	5	1.928	.675	.261	-.362	4.218
	6	.570	.382	1.000	-.724	1.864
	8	.505	.404	1.000	-.864	1.874

8	9	.864	.498	.997	-.824	2.553
	10	1.047	.558	.985	-.844	2.938
	11	2.095	.743	.285	-.423	4.613
	12	.481	.760	1.000	-2.095	3.057
	1	.055	.817	1.000	-2.716	2.825
	2	1.441	.839	.997	-1.402	4.285
	3	1.858	.831	.823	-.958	4.675
	4	2.211	.834	.426	-.616	5.037
	5	1.423	.731	.971	-1.054	3.900
	6	.065	.518	1.000	-1.693	1.823
	7	-.505	.404	1.000	-1.874	.864
	9	.360	.369	1.000	-.892	1.611
9	10	.543	.476	1.000	-1.070	2.155
	11	1.590	.715	.833	-.834	4.015
	12	-.024	.763	1.000	-2.611	2.564
	1	-.305	.854	1.000	-3.202	2.592
	2	1.082	.849	1.000	-1.798	3.961
	3	1.499	.845	.995	-1.367	4.364
	4	1.851	.840	.848	-.997	4.699
	5	1.063	.723	1.000	-1.388	3.515
	6	-.295	.570	1.000	-2.229	1.639
	7	-.864	.498	.997	-2.553	.824
	8	-.360	.369	1.000	-1.611	.892
	10	.183	.440	1.000	-1.308	1.674
10	11	1.231	.651	.983	-.977	3.438
	12	-.383	.695	1.000	-2.741	1.974
	1	-.488	.792	1.000	-3.174	2.197
	2	.899	.787	1.000	-1.771	3.568
	3	1.316	.804	.999	-1.409	4.040
	4	1.668	.825	.949	-1.131	4.467
	5	.881	.724	1.000	-1.575	3.336
	6	-.478	.615	1.000	-2.563	1.607
	7	-1.047	.558	.985	-2.938	.844

11	8	-.543	.476	1.000	-2.155	1.070
	9	-.183	.440	1.000	-1.674	1.308
	11	1.048	.524	.956	-.728	2.823
	12	-.566	.615	1.000	-2.651	1.518
	1	-1.536	.878	.996	-4.511	1.440
	2	-.149	.843	1.000	-3.006	2.708
	3	.268	.904	1.000	-2.797	3.333
	4	.620	.910	1.000	-2.463	3.704
	5	-.167	.776	1.000	-2.797	2.463
	6	-1.525	.772	.963	-4.142	1.091
	7	-2.095	.743	.285	-4.613	.423
12	8	-1.590	.715	.833	-4.015	.834
	9	-1.231	.651	.983	-3.438	.977
	10	-1.048	.524	.956	-2.823	.728
	12	-1.614	.508	.102	-3.337	.109
	1	.078	.861	1.000	-2.840	2.996
	2	1.465	.852	.997	-1.423	4.353
	3	1.882	.907	.926	-1.192	4.956
	4	2.234	.907	.611	-.840	5.308
	5	1.447	.794	.991	-1.245	4.139
	6	.089	.786	1.000	-2.576	2.753
	7	-.481	.760	1.000	-3.057	2.095
	8	.024	.763	1.000	-2.564	2.611
	9	.383	.695	1.000	-1.974	2.741
	10	.566	.615	1.000	-1.518	2.651
	11	1.614	.508	.102	-.109	3.337

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval
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				Lower Bound	Upper Bound
Low	1	54.227	1.497	51.283	57.171
	2	54.420	1.617	51.240	57.601
	3	54.227	1.734	50.816	57.638
	4	54.114	1.779	50.615	57.612
	5	55.057	1.715	51.683	58.430
	6	55.545	1.780	52.045	59.046
	7	57.352	1.886	53.643	61.062
	8	57.159	1.878	53.466	60.852
	9	57.455	1.812	53.891	61.018
	10	56.784	1.774	53.295	60.273
	11	55.818	1.830	52.219	59.417
	12	56.398	1.685	53.084	59.711
Medium	1	50.565	1.055	48.489	52.641
	2	49.746	1.140	47.503	51.988
	3	48.983	1.223	46.578	51.388
	4	49.017	1.254	46.550	51.484
	5	49.209	1.209	46.830	51.588
	6	50.113	1.255	47.645	52.581
	7	50.299	1.330	47.684	52.915
	8	50.785	1.324	48.181	53.389
	9	49.695	1.277	47.183	52.207
	10	50.282	1.251	47.823	52.742
	11	48.412	1.290	45.875	50.950
	12	49.311	1.188	46.974	51.647
High	1	48.034	1.497	45.090	50.978
	2	44.500	1.617	41.320	47.680
	3	44.205	1.734	40.794	47.615
	4	43.227	1.779	39.729	46.726
	5	44.455	1.715	41.081	47.828
	6	47.136	1.780	43.636	50.637
	7	46.852	1.886	43.143	50.562



8	45.045	1.878	41.353	48.738
9	44.761	1.812	41.198	48.324
10	44.295	1.774	40.807	47.784
11	43.989	1.830	40.390	47.588
12	47.352	1.685	44.039	50.666

### ***General Linear Model of Level of Net Income for Product***

#### **Between-Subjects Factors**

	Value Label	N
Net Income Level 1	Low	88
2	Medium	177
3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	15683.160	11	1425.742	16.786	.000	.046	1.000
	Greenhouse-Geisser	15683.160	3.542	4427.596	16.786	.000	.046	1.000
	Huynh-Feldt	15683.160	3.603	4352.502	16.786	.000	.046	1.000
	Lower-bound	15683.160	1.000	15683.160	16.786	.000	.046	.983
year * nilevel	Sphericity Assumed	5514.819	22	250.674	2.951	.000	.017	1.000
	Greenhouse-Geisser	5514.819	7.084	778.459	2.951	.004	.017	.937
	Huynh-Feldt	5514.819	7.207	765.256	2.951	.004	.017	.940
	Lower-bound	5514.819	2.000	2757.410	2.951	.054	.017	.573
Error(year)	Sphericity Assumed	327000.210	3850	84.935				
	Greenhouse-Geisser	327000.210	1239.749	263.763				
	Huynh-Feldt	327000.210	1261.138	259.290				

Lower-bound	327000.210	350.000	934.286				
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	14605.389	1	14605.389	34.174	.000	.089	1.000
	Quadratic	676.301	1	676.301	4.386	.037	.012	.551
	Cubic	37.540	1	37.540	.392	.532	.001	.096
year * nilevel	Linear	3191.082	2	1595.541	3.733	.025	.021	.682
	Quadratic	1652.482	2	826.241	5.358	.005	.030	.839
	Cubic	339.535	2	169.767	1.772	.171	.010	.370
Error(year)	Linear	149583.675	350	427.382				
	Quadratic	53972.781	350	154.208				
	Cubic	33523.337	350	95.781				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	19720.157	2	9860.079	4.273	.015	.024	.744
Error	807675.409	350	2307.644				

a Computed using alpha = .05

## Estimated Marginal Means

## 1. Net Income Level

### Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	52.880	1.478	49.972	55.787
Medium	50.051	1.042	48.001	52.101
High	46.777	1.478	43.869	49.684

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Net Income Level	(J) Net Income Level				Upper Bound	Lower Bound
Low	Medium	2.829	1.809	.316	-1.511	7.169
	High	6.103(*)	2.091	.011	1.087	11.119
Medium	Low	-2.829	1.809	.316	-7.169	1.511
	High	3.274	1.809	.199	-1.065	7.614
High	Low	-6.103(*)	2.091	.011	-11.119	-1.087
	Medium	-3.274	1.809	.199	-7.614	1.065

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1643.346	2	821.673	4.273	.015	.024	.744

Error	67306.284	350	192.304			
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The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	52.142	.808	50.553	53.731
2	52.243	.864	50.544	53.942
3	52.464	.849	50.795	54.133
4	51.280	.893	49.524	53.036
5	50.845	.861	49.151	52.539
6	50.283	.881	48.551	52.015
7	49.980	.933	48.146	51.815
8	49.530	.956	47.649	51.410
9	48.931	.964	47.034	50.828
10	48.541	.986	46.602	50.479
11	46.790	1.023	44.779	48.801
12	45.800	1.028	43.779	47.821

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.101	.538	1.000	-1.925	1.722
	3	-.322	.610	1.000	-2.391	1.747

2	4	.862	.728	1.000	-1.607	3.330
	5	1.297	.785	.999	-1.364	3.957
	6	1.859	.827	.814	-.944	4.662
	7	2.161	.898	.669	-.884	5.206
	8	2.612	.876	.184	-.360	5.584
	9	3.211(*)	.900	.027	.161	6.261
	10	3.601(*)	.892	.004	.577	6.625
	11	5.352(*)	.983	.000	2.019	8.685
	12	6.342(*)	.997	.000	2.962	9.721
	1	.101	.538	1.000	-1.722	1.925
	3	-.221	.409	1.000	-1.607	1.166
	4	.963	.640	1.000	-1.207	3.133
3	5	1.398	.736	.981	-1.096	3.892
	6	1.960	.782	.567	-.690	4.611
	7	2.263	.861	.447	-.655	5.181
	8	2.714	.856	.103	-.188	5.615
	9	3.312(*)	.884	.014	.315	6.310
	10	3.702(*)	.894	.003	.671	6.734
	11	5.453(*)	.984	.000	2.118	8.788
	12	6.443(*)	1.010	.000	3.020	9.866
	1	.322	.610	1.000	-1.747	2.391
	2	.221	.409	1.000	-1.166	1.607
	4	1.184	.528	.819	-.606	2.974
	5	1.619	.647	.571	-.574	3.811
4	6	2.181	.748	.220	-.353	4.716
	7	2.483	.836	.189	-.350	5.317
	8	2.934(*)	.823	.027	.142	5.726
	9	3.533(*)	.867	.004	.594	6.472
	10	3.923(*)	.893	.001	.894	6.952
	11	5.674(*)	.965	.000	2.402	8.946
	12	6.664(*)	.982	.000	3.334	9.993
	1	-.862	.728	1.000	-3.330	1.607
	2	-.963	.640	1.000	-3.133	1.207

5	3	-1.184	.528	.819	-2.974	.606
	5	.435	.490	1.000	-1.226	2.096
	6	.997	.647	1.000	-1.198	3.193
	7	1.300	.740	.996	-1.210	3.810
	8	1.751	.769	.792	-.858	4.359
	9	2.349	.826	.269	-.452	5.151
	10	2.739	.850	.087	-.142	5.621
	11	4.491(*)	.929	.000	1.340	7.641
	12	5.480(*)	.943	.000	2.284	8.677
	1	-1.297	.785	.999	-3.957	1.364
	2	-1.398	.736	.981	-3.892	1.096
	3	-1.619	.647	.571	-3.811	.574
6	4	-.435	.490	1.000	-2.096	1.226
	6	.562	.467	1.000	-1.022	2.147
	7	.865	.600	1.000	-1.169	2.898
	8	1.316	.649	.947	-.886	3.517
	9	1.914	.724	.432	-.539	4.368
	10	2.304	.750	.140	-.239	4.848
	11	4.056(*)	.816	.000	1.289	6.822
	12	5.045(*)	.837	.000	2.207	7.883
	1	-1.859	.827	.814	-4.662	.944
	2	-1.960	.782	.567	-4.611	.690
	3	-2.181	.748	.220	-4.716	.353
	4	-.997	.647	1.000	-3.193	1.198
7	5	-.562	.467	1.000	-2.147	1.022
	7	.302	.398	1.000	-1.048	1.652
	8	.753	.500	1.000	-.941	2.447
	9	1.352	.590	.777	-.647	3.351
	10	1.742	.620	.294	-.362	3.846
	11	3.493(*)	.724	.000	1.037	5.949
	12	4.483(*)	.739	.000	1.977	6.988
	1	-2.161	.898	.669	-5.206	.884
	2	-2.263	.861	.447	-5.181	.655

8	3	-2.483	.836	.189	-5.317	.350
	4	-1.300	.740	.996	-3.810	1.210
	5	-.865	.600	1.000	-2.898	1.169
	6	-.302	.398	1.000	-1.652	1.048
	8	.451	.339	1.000	-.697	1.599
	9	1.050	.497	.907	-.635	2.734
	10	1.440	.588	.626	-.553	3.432
	11	3.191(*)	.694	.000	.837	5.545
	12	4.180(*)	.718	.000	1.745	6.616
	1	-2.612	.876	.184	-5.584	.360
	2	-2.714	.856	.103	-5.615	.188
	3	-2.934(*)	.823	.027	-5.726	-.142
9	4	-1.751	.769	.792	-4.359	.858
	5	-1.316	.649	.947	-3.517	.886
	6	-.753	.500	1.000	-2.447	.941
	7	-.451	.339	1.000	-1.599	.697
	9	.599	.376	1.000	-.675	1.872
	10	.989	.506	.969	-.726	2.704
	11	2.740(*)	.638	.001	.577	4.903
	12	3.730(*)	.678	.000	1.430	6.029
	1	-3.211(*)	.900	.027	-6.261	-.161
	2	-3.312(*)	.884	.014	-6.310	-.315
	3	-3.533(*)	.867	.004	-6.472	-.594
	4	-2.349	.826	.269	-5.151	.452
10	5	-1.914	.724	.432	-4.368	.539
	6	-1.352	.590	.777	-3.351	.647
	7	-1.050	.497	.907	-2.734	.635
	8	-.599	.376	1.000	-1.872	.675
	10	.390	.363	1.000	-.840	1.620
	11	2.141(*)	.518	.003	.384	3.898
	12	3.131(*)	.587	.000	1.139	5.122
	1	-3.601(*)	.892	.004	-6.625	-.577
	2	-3.702(*)	.894	.003	-6.734	-.671

11	3	-3.923(*)	.893	.001	-6.952	-.894
	4	-2.739	.850	.087	-5.621	.142
	5	-2.304	.750	.140	-4.848	.239
	6	-1.742	.620	.294	-3.846	.362
	7	-1.440	.588	.626	-3.432	.553
	8	-.989	.506	.969	-2.704	.726
	9	-.390	.363	1.000	-1.620	.840
	11	1.751(*)	.412	.002	.353	3.149
	12	2.741(*)	.508	.000	1.019	4.463
	1	-5.352(*)	.983	.000	-8.685	-2.019
	2	-5.453(*)	.984	.000	-8.788	-2.118
12	3	-5.674(*)	.965	.000	-8.946	-2.402
	4	-4.491(*)	.929	.000	-7.641	-1.340
	5	-4.056(*)	.816	.000	-6.822	-1.289
	6	-3.493(*)	.724	.000	-5.949	-1.037
	7	-3.191(*)	.694	.000	-5.545	-.837
	8	-2.740(*)	.638	.001	-4.903	-.577
	9	-2.141(*)	.518	.003	-3.898	-.384
	10	-1.751(*)	.412	.002	-3.149	-.353
	12	.990	.335	.197	-.145	2.124
	1	-6.342(*)	.997	.000	-9.721	-2.962
	2	-6.443(*)	1.010	.000	-9.866	-3.020
	3	-6.664(*)	.982	.000	-9.993	-3.334
	4	-5.480(*)	.943	.000	-8.677	-2.284
	5	-5.045(*)	.837	.000	-7.883	-2.207
	6	-4.483(*)	.739	.000	-6.988	-1.977
	7	-4.180(*)	.718	.000	-6.616	-1.745
	8	-3.730(*)	.678	.000	-6.029	-1.430
	9	-3.131(*)	.587	.000	-5.122	-1.139
	10	-2.741(*)	.508	.000	-4.463	-1.019
	11	-.990	.335	.197	-2.124	.145

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.



### 3. Net Income Level \* year

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	54.193	1.534	51.177	57.210
	2	54.205	1.640	50.979	57.430
	3	54.750	1.611	51.581	57.919
	4	53.761	1.695	50.427	57.095
	5	53.455	1.635	50.239	56.670
	6	52.580	1.672	49.291	55.868
	7	52.364	1.771	48.880	55.847
	8	51.920	1.815	48.351	55.490
	9	51.591	1.831	47.990	55.192
	10	51.920	1.871	48.240	55.601
	11	51.693	1.941	47.875	55.511
	12	52.125	1.951	48.288	55.962
Medium	1	52.119	1.081	49.992	54.246
	2	52.616	1.156	50.341	54.890
	3	52.073	1.136	49.839	54.308
	4	51.045	1.195	48.694	53.396
	5	50.718	1.153	48.450	52.985
	6	49.689	1.179	47.371	52.008
	7	49.316	1.249	46.860	51.773
	8	49.373	1.280	46.856	51.890
	9	49.542	1.291	47.003	52.082
	10	49.486	1.319	46.891	52.081
	11	48.040	1.369	45.348	50.732
	12	46.593	1.375	43.888	49.298
High	1	50.114	1.534	47.097	53.130
	2	49.909	1.640	46.683	53.135

3	50.568	1.611	47.400	53.737
4	49.034	1.695	45.700	52.368
5	48.364	1.635	45.148	51.579
6	48.580	1.672	45.291	51.868
7	48.261	1.771	44.778	51.745
8	47.295	1.815	43.726	50.865
9	45.659	1.831	42.058	49.260
10	44.216	1.871	40.535	47.896
11	40.636	1.941	36.819	44.454
12	38.682	1.951	34.845	42.518

### ***General Linear Model of Level of Net Income for Corporate Governance***

#### **Between-Subjects Factors**

	Value Label	N
Net Income Level 1	Low	88
2	Medium	177
3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	48864.459	11	4442.224	34.091	.000	1.000
	Greenhouse-Geisser	48864.459	5.603	8720.348	34.091	.000	1.000
	Huynh-Feldt	48864.459	5.738	8516.422	34.091	.000	1.000
	Lower-bound	48864.459	1.000	48864.459	34.091	.000	1.000
year * nilevel	Sphericity Assumed	14959.258	22	679.966	5.218	.000	1.000
	Greenhouse-Geisser	14959.258	11.207	1334.814	5.218	.000	1.000

Error(year)	Huynh-Feldt	14959.258	11.475	1303.599	5.218	.000	.029	1.000
	Lower-bound	14959.258	2.000	7479.629	5.218	.006	.029	.829
	Sphericity Assumed	501670.151	3850	130.304				
	Greenhouse-Geisser	501670.151	1961.225	255.794				
	Huynh-Feldt	501670.151	2008.186	249.813				
	Lower-bound	501670.151	350.000	1433.343				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	45307.071	1	45307.071	98.618	.000	.220	1.000
	Quadratic	860.787	1	860.787	4.075	.044	.012	.521
	Cubic	477.839	1	477.839	3.188	.075	.009	.429
year * nilevel	Linear	8824.289	2	4412.144	9.604	.000	.052	.981
	Quadratic	4078.537	2	2039.269	9.654	.000	.052	.981
	Cubic	940.990	2	470.495	3.139	.045	.018	.601
Error(year)	Linear	160797.309	350	459.421				
	Quadratic	73929.130	350	211.226				
	Cubic	52465.612	350	149.902				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	106088.374	2	53044.187	37.369	.000	.176	1.000
Error	496820.562	350	1419.487				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

#### Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	56.126	1.159	53.846	58.406
Medium	51.192	.818	49.584	52.799
High	42.240	1.159	39.959	44.520

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	8840.698	2	4420.349	37.369	.000	.176	1.000
Error	41401.713	350	118.291				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Net Income Level	(J) Net Income Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	4.934(*)	1.419	.002	1.531	8.338
	High	13.886(*)	1.640	.000	9.953	17.820

Medium	Low	-4.934(*)	1.419	.002	-8.338	-1.531
	High	8.952(*)	1.419	.000	5.548	12.356
High	Low	-13.886(*)	1.640	.000	-17.820	-9.953
	Medium	-8.952(*)	1.419	.000	-12.356	-5.548

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.410	.345	55.732	57.089
2	55.303	.650	54.024	56.582
3	53.288	.709	51.893	54.683
4	51.320	.846	49.656	52.984
5	49.034	.871	47.322	50.747
6	50.856	.904	49.078	52.633
7	49.994	.946	48.133	51.855
8	47.142	1.007	45.162	49.122
9	47.902	.969	45.996	49.809
10	46.675	.982	44.745	48.606
11	45.521	.960	43.633	47.408
12	44.783	.963	42.890	46.676

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	1.108	.598	.988	-.920	3.135
	3	3.123(*)	.698	.001	.754	5.491
	4	5.091(*)	.866	.000	2.155	8.026
	5	7.376(*)	.898	.000	4.330	10.422
	6	5.555(*)	.937	.000	2.377	8.733
	7	6.416(*)	.992	.000	3.053	9.780
	8	9.268(*)	1.046	.000	5.723	12.814
	9	8.508(*)	1.008	.000	5.091	11.925
	10	9.735(*)	1.040	.000	6.208	13.263
	11	10.890(*)	1.022	.000	7.424	14.356
	12	11.627(*)	1.020	.000	8.168	15.087
2	1	-1.108	.598	.988	-3.135	.920
	3	2.015(*)	.579	.037	.050	3.979
	4	3.983(*)	.780	.000	1.339	6.627
	5	6.268(*)	.839	.000	3.423	9.113
	6	4.447(*)	.875	.000	1.479	7.415
	7	5.308(*)	.961	.000	2.051	8.566
	8	8.161(*)	.999	.000	4.773	11.549
	9	7.400(*)	1.025	.000	3.924	10.876
	10	8.627(*)	1.075	.000	4.984	12.271
	11	9.782(*)	1.050	.000	6.223	13.341
	12	10.520(*)	1.056	.000	6.939	14.100
3	1	-3.123(*)	.698	.001	-5.491	-.754
	2	-2.015(*)	.579	.037	-3.979	-.050
	4	1.968	.739	.415	-.537	4.473
	5	4.253(*)	.804	.000	1.528	6.979
	6	2.432	.889	.351	-.582	5.447
	7	3.294	1.004	.072	-.109	6.697
	8	6.146(*)	1.017	.000	2.697	9.595
	9	5.386(*)	1.056	.000	1.803	8.968
	10	6.613(*)	1.109	.000	2.851	10.374

4	11	7.767(*)	1.075	.000	4.121	11.414
	12	8.505(*)	1.089	.000	4.813	12.197
	1	-5.091(*)	.866	.000	-8.026	-2.155
	2	-3.983(*)	.780	.000	-6.627	-1.339
	3	-1.968	.739	.415	-4.473	.537
	5	2.285(*)	.623	.018	.173	4.398
	6	.464	.851	1.000	-2.420	3.349
	7	1.326	.926	1.000	-1.815	4.466
	8	4.178(*)	.965	.001	.905	7.450
	9	3.417	1.021	.058	-.045	6.880
	10	4.645(*)	1.033	.001	1.141	8.148
	11	5.799(*)	.982	.000	2.470	9.128
5	12	6.537(*)	.985	.000	3.196	9.878
	1	-7.376(*)	.898	.000	-10.422	-4.330
	2	-6.268(*)	.839	.000	-9.113	-3.423
	3	-4.253(*)	.804	.000	-6.979	-1.528
	4	-2.285(*)	.623	.018	-4.398	-.173
	6	-1.821	.748	.639	-4.356	.713
	7	-.960	.831	1.000	-3.779	1.859
	8	1.892	.867	.863	-1.047	4.831
	9	1.132	.928	1.000	-2.014	4.278
	10	2.359	.953	.599	-.872	5.590
	11	3.514(*)	.908	.009	.434	6.594
	12	4.251(*)	.918	.000	1.139	7.364
6	1	-5.555(*)	.937	.000	-8.733	-2.377
	2	-4.447(*)	.875	.000	-7.415	-1.479
	3	-2.432	.889	.351	-5.447	.582
	4	-.464	.851	1.000	-3.349	2.420
	5	1.821	.748	.639	-.713	4.356
	7	.861	.708	1.000	-1.539	3.262
	8	3.713(*)	.869	.002	.765	6.662
	9	2.953	.963	.143	-.312	6.219
	10	4.180(*)	.980	.002	.857	7.504

7	11	5.335(*)	.976	.000	2.027	8.643
	12	6.072(*)	.981	.000	2.747	9.398
	1	-6.416(*)	.992	.000	-9.780	-3.053
	2	-5.308(*)	.961	.000	-8.566	-2.051
	3	-3.294	1.004	.072	-6.697	.109
	4	-1.326	.926	1.000	-4.466	1.815
	5	.960	.831	1.000	-1.859	3.779
	6	-.861	.708	1.000	-3.262	1.539
	8	2.852(*)	.753	.012	.300	5.404
	9	2.092	.892	.730	-.934	5.118
	10	3.319(*)	.953	.036	.088	6.550
	11	4.474(*)	.918	.000	1.359	7.588
8	12	5.211(*)	.933	.000	2.049	8.373
	1	-9.268(*)	1.046	.000	-12.814	-5.723
	2	-8.161(*)	.999	.000	-11.549	-4.773
	3	-6.146(*)	1.017	.000	-9.595	-2.697
	4	-4.178(*)	.965	.001	-7.450	-.905
	5	-1.892	.867	.863	-4.831	1.047
	6	-3.713(*)	.869	.002	-6.662	-.765
	7	-2.852(*)	.753	.012	-5.404	-.300
	9	-.760	.712	1.000	-3.174	1.654
	10	.467	.873	1.000	-2.492	3.426
	11	1.621	.886	.991	-1.383	4.626
	12	2.359	.907	.476	-.718	5.436
9	1	-8.508(*)	1.008	.000	-11.925	-5.091
	2	-7.400(*)	1.025	.000	-10.876	-3.924
	3	-5.386(*)	1.056	.000	-8.968	-1.803
	4	-3.417	1.021	.058	-6.880	.045
	5	-1.132	.928	1.000	-4.278	2.014
	6	-2.953	.963	.143	-6.219	.312
	7	-2.092	.892	.730	-5.118	.934
	8	.760	.712	1.000	-1.654	3.174
	10	1.227	.739	.999	-1.278	3.732



10	11	2.382	.826	.241	-.418	5.181
	12	3.119(*)	.869	.025	.171	6.067
	1	-9.735(*)	1.040	.000	-13.263	-6.208
	2	-8.627(*)	1.075	.000	-12.271	-4.984
	3	-6.613(*)	1.109	.000	-10.374	-2.851
	4	-4.645(*)	1.033	.001	-8.148	-1.141
	5	-2.359	.953	.599	-5.590	.872
	6	-4.180(*)	.980	.002	-7.504	-.857
	7	-3.319(*)	.953	.036	-6.550	-.088
	8	-.467	.873	1.000	-3.426	2.492
	9	-1.227	.739	.999	-3.732	1.278
	11	1.155	.583	.962	-.822	3.131
11	12	1.892	.666	.271	-.367	4.151
	1	-10.890(*)	1.022	.000	-14.356	-7.424
	2	-9.782(*)	1.050	.000	-13.341	-6.223
	3	-7.767(*)	1.075	.000	-11.414	-4.121
	4	-5.799(*)	.982	.000	-9.128	-2.470
	5	-3.514(*)	.908	.009	-6.594	-.434
	6	-5.335(*)	.976	.000	-8.643	-2.027
	7	-4.474(*)	.918	.000	-7.588	-1.359
	8	-1.621	.886	.991	-4.626	1.383
	9	-2.382	.826	.241	-5.181	.418
	10	-1.155	.583	.962	-3.131	.822
	12	.738	.382	.975	-.558	2.033
12	1	-11.627(*)	1.020	.000	-15.087	-8.168
	2	-10.520(*)	1.056	.000	-14.100	-6.939
	3	-8.505(*)	1.089	.000	-12.197	-4.813
	4	-6.537(*)	.985	.000	-9.878	-3.196
	5	-4.251(*)	.918	.000	-7.364	-1.139
	6	-6.072(*)	.981	.000	-9.398	-2.747
	7	-5.211(*)	.933	.000	-8.373	-2.049
	8	-2.359	.907	.476	-5.436	.718
	9	-3.119(*)	.869	.025	-6.067	-.171

10	-1.892	.666	.271	-4.151	.367
11	-.738	.382	.975	-2.033	.558

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year

#### Estimates

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.409	.655	55.121	57.697
	2	58.625	1.235	56.197	61.053
	3	59.216	1.346	56.568	61.864
	4	57.000	1.606	53.841	60.159
	5	56.114	1.653	52.862	59.365
	6	58.182	1.716	54.807	61.556
	7	58.477	1.797	54.944	62.011
	8	54.489	1.911	50.730	58.247
	9	55.523	1.840	51.904	59.142
	10	53.602	1.863	49.937	57.267
	11	53.307	1.822	49.723	56.890
	12	52.568	1.828	48.974	56.163
Medium	1	56.266	.462	55.357	57.174
	2	56.192	.870	54.480	57.904
	3	53.989	.949	52.122	55.856
	4	53.107	1.132	50.880	55.335
	5	50.831	1.166	48.538	53.123
	6	51.271	1.210	48.892	53.651
	7	51.051	1.267	48.559	53.542
	8	48.994	1.347	46.344	51.644

High	9	50.537	1.297	47.985	53.089
	10	48.480	1.314	45.896	51.064
	11	47.085	1.285	44.558	49.611
	12	46.497	1.289	43.963	49.032
	1	56.557	.655	55.269	57.845
	2	51.091	1.235	48.663	53.519
	3	46.659	1.346	44.011	49.307
	4	43.852	1.606	40.693	47.011
	5	40.159	1.653	36.908	43.410
	6	43.114	1.716	39.739	46.488
	7	40.455	1.797	36.921	43.988
	8	37.943	1.911	34.185	41.701
	9	37.648	1.840	34.029	41.267
	10	37.943	1.863	34.278	41.608
	11	36.170	1.822	32.587	39.754
	12	35.284	1.828	31.690	38.878

#### Multivariate Tests

Net Income Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.061	1.998(b)	11.000	340.000	.028	.061	.903
	Wilks' lambda	.939	1.998(b)	11.000	340.000	.028	.061	.903
	Hotelling's trace	.065	1.998(b)	11.000	340.000	.028	.061	.903
	Roy's largest root	.065	1.998(b)	11.000	340.000	.028	.061	.903
Medium	Pillai's trace	.156	5.705(b)	11.000	340.000	.000	.156	1.000
	Wilks' lambda	.844	5.705(b)	11.000	340.000	.000	.156	1.000
	Hotelling's trace	.185	5.705(b)	11.000	340.000	.000	.156	1.000
	Roy's largest root	.185	5.705(b)	11.000	340.000	.000	.156	1.000
High	Pillai's trace	.315	14.191(b)	11.000	340.000	.000	.315	1.000
	Wilks' lambda	.685	14.191(b)	11.000	340.000	.000	.315	1.000
	Hotelling's trace	.459	14.191(b)	11.000	340.000	.000	.315	1.000

Roy's largest root	.459	14.191(b)	11.000	340.000	.000	.315	1.000
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Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

			Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
Net Income Level	(I) year	(J) year				Upper Bound	Lower Bound
Low	1	2	-2.216	1.135	.970	-6.065	1.633
		3	-2.807	1.326	.905	-7.303	1.689
		4	-.591	1.644	1.000	-6.164	4.982
		5	.295	1.705	1.000	-5.487	6.078
		6	-1.773	1.780	1.000	-7.807	4.261
		7	-2.068	1.883	1.000	-8.453	4.317
		8	1.920	1.985	1.000	-4.811	8.652
		9	.886	1.913	1.000	-5.600	7.373
		10	2.807	1.975	1.000	-3.890	9.504
		11	3.102	1.941	1.000	-3.477	9.682
		12	3.841	1.937	.961	-2.727	10.408
	2	1	2.216	1.135	.970	-1.633	6.065
		3	-.591	1.100	1.000	-4.321	3.139
		4	1.625	1.480	1.000	-3.394	6.644
		5	2.511	1.593	1.000	-2.889	7.912
		6	.443	1.662	1.000	-5.192	6.078
		7	.148	1.824	1.000	-6.037	6.333
		8	4.136	1.897	.865	-2.296	10.568
		9	3.102	1.946	1.000	-3.497	9.702
		10	5.023	2.040	.614	-1.895	11.940
		11	5.318	1.992	.410	-1.437	12.074

3	12	6.057	2.005	.163	-.740	12.854
	1	2.807	1.326	.905	-1.689	7.303
	2	.591	1.100	1.000	-3.139	4.321
	4	2.216	1.403	1.000	-2.540	6.972
	5	3.102	1.526	.944	-2.073	8.277
	6	1.034	1.688	1.000	-4.689	6.757
	7	.739	1.905	1.000	-5.722	7.199
	8	4.727	1.931	.628	-1.821	11.275
	9	3.693	2.006	.989	-3.107	10.494
	10	5.614	2.106	.413	-1.527	12.754
	11	5.909	2.042	.234	-1.013	12.831
	12	6.648	2.067	.090	-.362	13.657
4	1	.591	1.644	1.000	-4.982	6.164
	2	-1.625	1.480	1.000	-6.644	3.394
	3	-2.216	1.403	1.000	-6.972	2.540
	5	.886	1.183	1.000	-3.125	4.898
	6	-1.182	1.615	1.000	-6.658	4.295
	7	-1.477	1.758	1.000	-7.439	4.484
	8	2.511	1.832	1.000	-3.701	8.724
	9	1.477	1.939	1.000	-5.096	8.050
	10	3.398	1.962	.997	-3.254	10.049
	11	3.693	1.864	.962	-2.627	10.013
	12	4.432	1.871	.706	-1.911	10.775
5	1	-.295	1.705	1.000	-6.078	5.487
	2	-2.511	1.593	1.000	-7.912	2.889
	3	-3.102	1.526	.944	-8.277	2.073
	4	-.886	1.183	1.000	-4.898	3.125
	6	-2.068	1.419	1.000	-6.880	2.744
	7	-2.364	1.578	1.000	-7.715	2.988
	8	1.625	1.646	1.000	-3.955	7.205
	9	.591	1.761	1.000	-5.381	6.563
	10	2.511	1.809	1.000	-3.622	8.645
	11	2.807	1.724	.999	-3.040	8.654

6	12	3.545	1.743	.944	-2.363	9.454
	1	1.773	1.780	1.000	-4.261	7.807
	2	-.443	1.662	1.000	-6.078	5.192
	3	-1.034	1.688	1.000	-6.757	4.689
	4	1.182	1.615	1.000	-4.295	6.658
	5	2.068	1.419	1.000	-2.744	6.880
	7	-.295	1.344	1.000	-4.853	4.262
	8	3.693	1.651	.823	-1.904	9.290
	9	2.659	1.828	1.000	-3.540	8.858
	10	4.580	1.861	.614	-1.730	10.889
	11	4.875	1.852	.444	-1.405	11.155
	12	5.614	1.862	.167	-.699	11.927
7	1	2.068	1.883	1.000	-4.317	8.453
	2	-.148	1.824	1.000	-6.333	6.037
	3	-.739	1.905	1.000	-7.199	5.722
	4	1.477	1.758	1.000	-4.484	7.439
	5	2.364	1.578	1.000	-2.988	7.715
	6	.295	1.344	1.000	-4.262	4.853
	8	3.989	1.429	.306	-.856	8.833
	9	2.955	1.694	.996	-2.790	8.699
	10	4.875	1.809	.387	-1.259	11.009
	11	5.170	1.744	.192	-.741	11.082
	12	5.909	1.770	.060	-.094	11.912
8	1	-1.920	1.985	1.000	-8.652	4.811
	2	-4.136	1.897	.865	-10.568	2.296
	3	-4.727	1.931	.628	-11.275	1.821
	4	-2.511	1.832	1.000	-8.724	3.701
	5	-1.625	1.646	1.000	-7.205	3.955
	6	-3.693	1.651	.823	-9.290	1.904
	7	-3.989	1.429	.306	-8.833	.856
	9	-1.034	1.352	1.000	-5.617	3.549
	10	.886	1.657	1.000	-4.732	6.504
	11	1.182	1.682	1.000	-4.522	6.886

9	12	1.920	1.723	1.000	-3.921	7.762
	1	-.886	1.913	1.000	-7.373	5.600
	2	-3.102	1.946	1.000	-9.702	3.497
	3	-3.693	2.006	.989	-10.494	3.107
	4	-1.477	1.939	1.000	-8.050	5.096
	5	-.591	1.761	1.000	-6.563	5.381
	6	-2.659	1.828	1.000	-8.858	3.540
	7	-2.955	1.694	.996	-8.699	2.790
	8	1.034	1.352	1.000	-3.549	5.617
	10	1.920	1.403	1.000	-2.836	6.677
	11	2.216	1.568	1.000	-3.099	7.531
	12	2.955	1.650	.994	-2.642	8.551
10	1	-2.807	1.975	1.000	-9.504	3.890
	2	-5.023	2.040	.614	-11.940	1.895
	3	-5.614	2.106	.413	-12.754	1.527
	4	-3.398	1.962	.997	-10.049	3.254
	5	-2.511	1.809	1.000	-8.645	3.622
	6	-4.580	1.861	.614	-10.889	1.730
	7	-4.875	1.809	.387	-11.009	1.259
	8	-.886	1.657	1.000	-6.504	4.732
	9	-1.920	1.403	1.000	-6.677	2.836
	11	.295	1.107	1.000	-3.458	4.048
	12	1.034	1.265	1.000	-3.255	5.323
11	1	-3.102	1.941	1.000	-9.682	3.477
	2	-5.318	1.992	.410	-12.074	1.437
	3	-5.909	2.042	.234	-12.831	1.013
	4	-3.693	1.864	.962	-10.013	2.627
	5	-2.807	1.724	.999	-8.654	3.040
	6	-4.875	1.852	.444	-11.155	1.405
	7	-5.170	1.744	.192	-11.082	.741
	8	-1.182	1.682	1.000	-6.886	4.522
	9	-2.216	1.568	1.000	-7.531	3.099
	10	-.295	1.107	1.000	-4.048	3.458

Medium	12	12	.739	.726	1.000	-1.722	3.199
		1	-3.841	1.937	.961	-10.408	2.727
		2	-6.057	2.005	.163	-12.854	.740
		3	-6.648	2.067	.090	-13.657	.362
		4	-4.432	1.871	.706	-10.775	1.911
		5	-3.545	1.743	.944	-9.454	2.363
		6	-5.614	1.862	.167	-11.927	.699
		7	-5.909	1.770	.060	-11.912	.094
		8	-1.920	1.723	1.000	-7.762	3.921
		9	-2.955	1.650	.994	-8.551	2.642
		10	-1.034	1.265	1.000	-5.323	3.255
		11	-.739	.726	1.000	-3.199	1.722
	1	2	.073	.800	1.000	-2.641	2.788
		3	2.277	.935	.641	-.893	5.447
		4	3.158	1.159	.360	-.771	7.088
		5	5.435(*)	1.202	.001	1.358	9.512
		6	4.994(*)	1.255	.006	.740	9.249
		7	5.215(*)	1.328	.007	.713	9.717
		8	7.271(*)	1.400	.000	2.525	12.018
		9	5.729(*)	1.349	.002	1.155	10.303
		10	7.785(*)	1.393	.000	3.063	12.508
		11	9.181(*)	1.368	.000	4.541	13.820
		12	9.768(*)	1.366	.000	5.138	14.399
	2	1	-.073	.800	1.000	-2.788	2.641
		3	2.203	.776	.270	-.426	4.833
		4	3.085	1.044	.198	-.454	6.624
		5	5.362(*)	1.123	.000	1.553	9.170
		6	4.921(*)	1.172	.002	.947	8.894
		7	5.141(*)	1.286	.005	.780	9.502
		8	7.198(*)	1.338	.000	2.663	11.733
		9	5.655(*)	1.372	.003	1.002	10.309
		10	7.712(*)	1.439	.000	2.834	12.589
		11	9.107(*)	1.405	.000	4.344	13.871



3	12	9.695(*)	1.413	.000	4.902	14.487
	1	-2.277	.935	.641	-5.447	.893
	2	-2.203	.776	.270	-4.833	.426
	4	.881	.989	1.000	-2.472	4.235
	5	3.158	1.076	.210	-.491	6.807
	6	2.718	1.190	.785	-1.318	6.753
	7	2.938	1.343	.861	-1.617	7.493
	8	4.994(*)	1.362	.018	.377	9.611
	9	3.452	1.414	.635	-1.343	8.247
	10	5.508(*)	1.485	.016	.474	10.543
	11	6.904(*)	1.440	.000	2.023	11.785
	12	7.492(*)	1.458	.000	2.549	12.434
4	1	-3.158	1.159	.360	-7.088	.771
	2	-3.085	1.044	.198	-6.624	.454
	3	-.881	.989	1.000	-4.235	2.472
	5	2.277	.834	.357	-.551	5.105
	6	1.836	1.139	.999	-2.025	5.698
	7	2.056	1.240	.999	-2.147	6.260
	8	4.113	1.292	.099	-.267	8.493
	9	2.571	1.367	.984	-2.064	7.205
	10	4.627	1.383	.058	-.063	9.317
	11	6.023(*)	1.314	.000	1.566	10.479
	12	6.610(*)	1.319	.000	2.138	11.083
5	1	-5.435(*)	1.202	.001	-9.512	-1.358
	2	-5.362(*)	1.123	.000	-9.170	-1.553
	3	-3.158	1.076	.210	-6.807	.491
	4	-2.277	.834	.357	-5.105	.551
	6	-.441	1.001	1.000	-3.833	2.952
	7	-.220	1.113	1.000	-3.994	3.553
	8	1.836	1.160	1.000	-2.098	5.770
	9	.294	1.242	1.000	-3.917	4.505
	10	2.350	1.276	.989	-1.975	6.675
	11	3.746	1.216	.137	-.377	7.868

6	12	4.333(*)	1.229	.031	.167	8.499
	1	-4.994(*)	1.255	.006	-9.249	-.740
	2	-4.921(*)	1.172	.002	-8.894	-.947
	3	-2.718	1.190	.785	-6.753	1.318
	4	-1.836	1.139	.999	-5.698	2.025
	5	.441	1.001	1.000	-2.952	3.833
	7	.220	.948	1.000	-2.993	3.434
	8	2.277	1.164	.969	-1.669	6.223
	9	.734	1.289	1.000	-3.637	5.106
	10	2.791	1.312	.899	-1.658	7.240
	11	4.186	1.306	.093	-.242	8.614
	12	4.774(*)	1.313	.021	.323	9.225
7	1	-5.215(*)	1.328	.007	-9.717	-.713
	2	-5.141(*)	1.286	.005	-9.502	-.780
	3	-2.938	1.343	.861	-7.493	1.617
	4	-2.056	1.240	.999	-6.260	2.147
	5	.220	1.113	1.000	-3.553	3.994
	6	-.220	.948	1.000	-3.434	2.993
	8	2.056	1.007	.941	-1.359	5.472
	9	.514	1.195	1.000	-3.536	4.564
	10	2.571	1.276	.951	-1.754	6.896
	11	3.966	1.229	.087	-.202	8.135
	12	4.554(*)	1.248	.020	.321	8.786
8	1	-7.271(*)	1.400	.000	-12.018	-2.525
	2	-7.198(*)	1.338	.000	-11.733	-2.663
	3	-4.994(*)	1.362	.018	-9.611	-.377
	4	-4.113	1.292	.099	-8.493	.267
	5	-1.836	1.160	1.000	-5.770	2.098
	6	-2.277	1.164	.969	-6.223	1.669
	7	-2.056	1.007	.941	-5.472	1.359
	9	-1.542	.953	.999	-4.774	1.689
	10	.514	1.168	1.000	-3.447	4.475
	11	1.910	1.186	.999	-2.113	5.932

9	12	2.497	1.215	.935	-1.621	6.616
	1	-5.729(*)	1.349	.002	-10.303	-1.155
	2	-5.655(*)	1.372	.003	-10.309	-1.002
	3	-3.452	1.414	.635	-8.247	1.343
	4	-2.571	1.367	.984	-7.205	2.064
	5	-.294	1.242	1.000	-4.505	3.917
	6	-.734	1.289	1.000	-5.106	3.637
	7	-.514	1.195	1.000	-4.564	3.536
	8	1.542	.953	.999	-1.689	4.774
	10	2.056	.989	.924	-1.297	5.410
	11	3.452	1.105	.120	-.296	7.200
	12	4.040(*)	1.164	.038	.094	7.985
10	1	-7.785(*)	1.393	.000	-12.508	-3.063
	2	-7.712(*)	1.439	.000	-12.589	-2.834
	3	-5.508(*)	1.485	.016	-10.543	-.474
	4	-4.627	1.383	.058	-9.317	.063
	5	-2.350	1.276	.989	-6.675	1.975
	6	-2.791	1.312	.899	-7.240	1.658
	7	-2.571	1.276	.951	-6.896	1.754
	8	-.514	1.168	1.000	-4.475	3.447
	9	-2.056	.989	.924	-5.410	1.297
	11	1.395	.780	.994	-1.251	4.042
	12	1.983	.892	.834	-1.041	5.007
11	1	-9.181(*)	1.368	.000	-13.820	-4.541
	2	-9.107(*)	1.405	.000	-13.871	-4.344
	3	-6.904(*)	1.440	.000	-11.785	-2.023
	4	-6.023(*)	1.314	.000	-10.479	-1.566
	5	-3.746	1.216	.137	-7.868	.377
	6	-4.186	1.306	.093	-8.614	.242
	7	-3.966	1.229	.087	-8.135	.202
	8	-1.910	1.186	.999	-5.932	2.113
	9	-3.452	1.105	.120	-7.200	.296
	10	-1.395	.780	.994	-4.042	1.251

High	12	12	.588	.512	1.000	-1.147	2.322
		1	-9.768(*)	1.366	.000	-14.399	-5.138
		2	-9.695(*)	1.413	.000	-14.487	-4.902
		3	-7.492(*)	1.458	.000	-12.434	-2.549
		4	-6.610(*)	1.319	.000	-11.083	-2.138
		5	-4.333(*)	1.229	.031	-8.499	-.167
		6	-4.774(*)	1.313	.021	-9.225	-.323
		7	-4.554(*)	1.248	.020	-8.786	-.321
		8	-2.497	1.215	.935	-6.616	1.621
		9	-4.040(*)	1.164	.038	-7.985	-.094
		10	-1.983	.892	.834	-5.007	1.041
		11	-.588	.512	1.000	-2.322	1.147
	1	2	5.466(*)	1.135	.000	1.617	9.315
		3	9.898(*)	1.326	.000	5.402	14.394
		4	12.705(*)	1.644	.000	7.132	18.277
		5	16.398(*)	1.705	.000	10.616	22.180
		6	13.443(*)	1.780	.000	7.409	19.477
		7	16.102(*)	1.883	.000	9.717	22.487
		8	18.614(*)	1.985	.000	11.882	25.345
		9	18.909(*)	1.913	.000	12.422	25.396
		10	18.614(*)	1.975	.000	11.916	25.311
		11	20.386(*)	1.941	.000	13.807	26.966
		12	21.273(*)	1.937	.000	14.705	27.840
	2	1	-5.466(*)	1.135	.000	-9.315	-1.617
		3	4.432(*)	1.100	.005	.702	8.161
		4	7.239(*)	1.480	.000	2.219	12.258
		5	10.932(*)	1.593	.000	5.531	16.333
		6	7.977(*)	1.662	.000	2.342	13.612
		7	10.636(*)	1.824	.000	4.451	16.821
		8	13.148(*)	1.897	.000	6.716	19.580
		9	13.443(*)	1.946	.000	6.844	20.043
		10	13.148(*)	2.040	.000	6.230	20.065
		11	14.920(*)	1.992	.000	8.165	21.676

3	12	15.807(*)	2.005	.000	9.010	22.604
	1	-9.898(*)	1.326	.000	-14.394	-5.402
	2	-4.432(*)	1.100	.005	-8.161	-.702
	4	2.807	1.403	.956	-1.949	7.563
	5	6.500(*)	1.526	.002	1.325	11.675
	6	3.545	1.688	.913	-2.177	9.268
	7	6.205	1.905	.079	-.256	12.665
	8	8.716(*)	1.931	.001	2.168	15.264
	9	9.011(*)	2.006	.001	2.211	15.812
	10	8.716(*)	2.106	.003	1.575	15.856
	11	10.489(*)	2.042	.000	3.566	17.411
	12	11.375(*)	2.067	.000	4.366	18.384
4	1	-12.705(*)	1.644	.000	-18.277	-7.132
	2	-7.239(*)	1.480	.000	-12.258	-2.219
	3	-2.807	1.403	.956	-7.563	1.949
	5	3.693	1.183	.121	-.318	7.704
	6	.739	1.615	1.000	-4.738	6.215
	7	3.398	1.758	.975	-2.564	9.359
	8	5.909	1.832	.087	-.303	12.122
	9	6.205	1.939	.094	-.368	12.778
	10	5.909	1.962	.168	-.743	12.561
	11	7.682(*)	1.864	.003	1.362	14.002
	12	8.568(*)	1.871	.000	2.225	14.911
5	1	-16.398(*)	1.705	.000	-22.180	-10.616
	2	-10.932(*)	1.593	.000	-16.333	-5.531
	3	-6.500(*)	1.526	.002	-11.675	-1.325
	4	-3.693	1.183	.121	-7.704	.318
	6	-2.955	1.419	.923	-7.766	1.857
	7	-.295	1.578	1.000	-5.647	5.056
	8	2.216	1.646	1.000	-3.364	7.796
	9	2.511	1.761	1.000	-3.461	8.484
	10	2.216	1.809	1.000	-3.918	8.349
	11	3.989	1.724	.758	-1.858	9.835

6	12	4.875	1.743	.302	-1.033	10.783
	1	-13.443(*)	1.780	.000	-19.477	-7.409
	2	-7.977(*)	1.662	.000	-13.612	-2.342
	3	-3.545	1.688	.913	-9.268	2.177
	4	-.739	1.615	1.000	-6.215	4.738
	5	2.955	1.419	.923	-1.857	7.766
	7	2.659	1.344	.963	-1.898	7.216
	8	5.170	1.651	.117	-.426	10.767
	9	5.466	1.828	.179	-.733	11.665
	10	5.170	1.861	.317	-1.139	11.480
	11	6.943(*)	1.852	.014	.663	13.223
	12	7.830(*)	1.862	.002	1.516	14.143
7	1	-16.102(*)	1.883	.000	-22.487	-9.717
	2	-10.636(*)	1.824	.000	-16.821	-4.451
	3	-6.205	1.905	.079	-12.665	.256
	4	-3.398	1.758	.975	-9.359	2.564
	5	.295	1.578	1.000	-5.056	5.647
	6	-2.659	1.344	.963	-7.216	1.898
	8	2.511	1.429	.996	-2.333	7.356
	9	2.807	1.694	.999	-2.937	8.551
	10	2.511	1.809	1.000	-3.622	8.645
	11	4.284	1.744	.618	-1.628	10.196
	12	5.170	1.770	.218	-.832	11.173
8	1	-18.614(*)	1.985	.000	-25.345	-11.882
	2	-13.148(*)	1.897	.000	-19.580	-6.716
	3	-8.716(*)	1.931	.001	-15.264	-2.168
	4	-5.909	1.832	.087	-12.122	.303
	5	-2.216	1.646	1.000	-7.796	3.364
	6	-5.170	1.651	.117	-10.767	.426
	7	-2.511	1.429	.996	-7.356	2.333
	9	.295	1.352	1.000	-4.287	4.878
	10	1.42E-014	1.657	1.000	-5.618	5.618
	11	1.773	1.682	1.000	-3.932	7.477

9	12	2.659	1.723	1.000	-3.182	8.500
	1	-18.909(*)	1.913	.000	-25.396	-12.422
	2	-13.443(*)	1.946	.000	-20.043	-6.844
	3	-9.011(*)	2.006	.001	-15.812	-2.211
	4	-6.205	1.939	.094	-12.778	.368
	5	-2.511	1.761	1.000	-8.484	3.461
	6	-5.466	1.828	.179	-11.665	.733
	7	-2.807	1.694	.999	-8.551	2.937
	8	-.295	1.352	1.000	-4.878	4.287
	10	-.295	1.403	1.000	-5.052	4.461
	11	1.477	1.568	1.000	-3.838	6.792
	12	2.364	1.650	1.000	-3.233	7.960
10	1	-18.614(*)	1.975	.000	-25.311	-11.916
	2	-13.148(*)	2.040	.000	-20.065	-6.230
	3	-8.716(*)	2.106	.003	-15.856	-1.575
	4	-5.909	1.962	.168	-12.561	.743
	5	-2.216	1.809	1.000	-8.349	3.918
	6	-5.170	1.861	.317	-11.480	1.139
	7	-2.511	1.809	1.000	-8.645	3.622
	8	-1.42E-014	1.657	1.000	-5.618	5.618
	9	.295	1.403	1.000	-4.461	5.052
	11	1.773	1.107	1.000	-1.980	5.526
	12	2.659	1.265	.913	-1.630	6.948
11	1	-20.386(*)	1.941	.000	-26.966	-13.807
	2	-14.920(*)	1.992	.000	-21.676	-8.165
	3	-10.489(*)	2.042	.000	-17.411	-3.566
	4	-7.682(*)	1.864	.003	-14.002	-1.362
	5	-3.989	1.724	.758	-9.835	1.858
	6	-6.943(*)	1.852	.014	-13.223	-.663
	7	-4.284	1.744	.618	-10.196	1.628
	8	-1.773	1.682	1.000	-7.477	3.932
	9	-1.477	1.568	1.000	-6.792	3.838
	10	-1.773	1.107	1.000	-5.526	1.980

	12	.886	.726	1.000	-1.574	3.347
12	1	-21.273(*)	1.937	.000	-27.840	-14.705
	2	-15.807(*)	2.005	.000	-22.604	-9.010
	3	-11.375(*)	2.067	.000	-18.384	-4.366
	4	-8.568(*)	1.871	.000	-14.911	-2.225
	5	-4.875	1.743	.302	-10.783	1.033
	6	-7.830(*)	1.862	.002	-14.143	-1.516
	7	-5.170	1.770	.218	-11.173	.832
	8	-2.659	1.723	1.000	-8.500	3.182
	9	-2.364	1.650	1.000	-7.960	3.233
	10	-2.659	1.265	.913	-6.948	1.630
	11	-.886	.726	1.000	-3.347	1.574

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Net Income Level \* year

#### Estimates

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.409	.655	55.121	57.697
	2	58.625	1.235	56.197	61.053
	3	59.216	1.346	56.568	61.864
	4	57.000	1.606	53.841	60.159
	5	56.114	1.653	52.862	59.365
	6	58.182	1.716	54.807	61.556
	7	58.477	1.797	54.944	62.011
	8	54.489	1.911	50.730	58.247



Medium	9	55.523	1.840	51.904	59.142
	10	53.602	1.863	49.937	57.267
	11	53.307	1.822	49.723	56.890
	12	52.568	1.828	48.974	56.163
	1	56.266	.462	55.357	57.174
	2	56.192	.870	54.480	57.904
	3	53.989	.949	52.122	55.856
	4	53.107	1.132	50.880	55.335
	5	50.831	1.166	48.538	53.123
	6	51.271	1.210	48.892	53.651
	7	51.051	1.267	48.559	53.542
	8	48.994	1.347	46.344	51.644
High	9	50.537	1.297	47.985	53.089
	10	48.480	1.314	45.896	51.064
	11	47.085	1.285	44.558	49.611
	12	46.497	1.289	43.963	49.032
	1	56.557	.655	55.269	57.845
	2	51.091	1.235	48.663	53.519
	3	46.659	1.346	44.011	49.307
	4	43.852	1.606	40.693	47.011
	5	40.159	1.653	36.908	43.410
	6	43.114	1.716	39.739	46.488
	7	40.455	1.797	36.921	43.988
	8	37.943	1.911	34.185	41.701
	9	37.648	1.840	34.029	41.267
	10	37.943	1.863	34.278	41.608
	11	36.170	1.822	32.587	39.754
	12	35.284	1.828	31.690	38.878

#### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	5.132	2	2.566	.068	.934	.000	.060
	Error	13207.508	350	37.736				
2	Contrast	2654.628	2	1327.314	9.897	.000	.054	.984
	Error	46941.367	350	134.118				
3	Contrast	7035.160	2	3517.580	22.058	.000	.112	1.000
	Error	55814.648	350	159.470				
4	Contrast	8240.374	2	4120.187	18.151	.000	.094	1.000
	Error	79450.040	350	227.000				
5	Contrast	11840.641	2	5920.321	24.618	.000	.123	1.000
	Error	84169.552	350	240.484				
6	Contrast	10024.507	2	5012.254	19.349	.000	.100	1.000
	Error	90666.938	350	259.048				
7	Contrast	14513.708	2	7256.854	25.549	.000	.127	1.000
	Error	99414.315	350	284.041				
8	Contrast	12726.352	2	6363.176	19.802	.000	.102	1.000
	Error	112467.699	350	321.336				
9	Contrast	15436.640	2	7718.320	25.903	.000	.129	1.000
	Error	104290.045	350	297.972				
10	Contrast	11436.029	2	5718.015	18.712	.000	.097	1.000
	Error	106953.976	350	305.583				
11	Contrast	13406.563	2	6703.281	22.946	.000	.116	1.000
	Error	102246.888	350	292.134				
12	Contrast	13727.900	2	6863.950	23.354	.000	.118	1.000
	Error	102867.737	350	293.908				

Each F tests the simple effects of Net Income Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Net Income Level	(J) Net Income Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	.144	.801	.997	-1.779	2.066
		High	-.148	.926	.998	-2.370	2.074
	Medium	Low	-.144	.801	.997	-2.066	1.779
		High	-.291	.801	.977	-2.214	1.631
	High	Low	.148	.926	.998	-2.074	2.370
		Medium	.291	.801	.977	-1.631	2.214
2	Low	Medium	2.433	1.511	.291	-1.191	6.057
		High	7.534(*)	1.746	.000	3.345	11.723
	Medium	Low	-2.433	1.511	.291	-6.057	1.191
		High	5.101(*)	1.511	.002	1.477	8.725
	High	Low	-7.534(*)	1.746	.000	-11.723	-3.345
		Medium	-5.101(*)	1.511	.002	-8.725	-1.477
3	Low	Medium	5.227(*)	1.647	.005	1.275	9.179
		High	12.557(*)	1.904	.000	7.989	17.124
	Medium	Low	-5.227(*)	1.647	.005	-9.179	-1.275
		High	7.330(*)	1.647	.000	3.378	11.282
	High	Low	-12.557(*)	1.904	.000	-17.124	-7.989
		Medium	-7.330(*)	1.647	.000	-11.282	-3.378
4	Low	Medium	3.893	1.965	.138	-.822	8.608
		High	13.148(*)	2.271	.000	7.698	18.597
	Medium	Low	-3.893	1.965	.138	-8.608	.822
		High	9.255(*)	1.965	.000	4.540	13.970
	High	Low	-13.148(*)	2.271	.000	-18.597	-7.698
		Medium	-9.255(*)	1.965	.000	-13.970	-4.540
5	Low	Medium	5.283(*)	2.023	.028	.430	10.136
		High	15.955(*)	2.338	.000	10.346	21.564
	Medium	Low	-5.283(*)	2.023	.028	-10.136	-.430

6	High	High	10.671(*)	2.023	.000	5.818	15.524
		Low	-15.955(*)	2.338	.000	-21.564	-10.346
		Medium	-10.671(*)	2.023	.000	-15.524	-5.818
	Low	Medium	6.911(*)	2.099	.003	1.874	11.947
		High	15.068(*)	2.426	.000	9.247	20.890
		Low	-6.911(*)	2.099	.003	-11.947	-1.874
7	Medium	High	8.158(*)	2.099	.000	3.121	13.194
		Low	-15.068(*)	2.426	.000	-20.890	-9.247
		Medium	-8.158(*)	2.099	.000	-13.194	-3.121
	Low	Medium	7.426(*)	2.198	.002	2.152	12.701
		High	18.023(*)	2.541	.000	11.927	24.119
		Low	-7.426(*)	2.198	.002	-12.701	-2.152
8	Medium	High	10.596(*)	2.198	.000	5.322	15.870
		Low	-18.023(*)	2.541	.000	-24.119	-11.927
		Medium	-10.596(*)	2.198	.000	-15.870	-5.322
	Low	Medium	5.494	2.338	.057	-.115	11.104
		High	16.545(*)	2.702	.000	10.062	23.029
		Low	-5.494	2.338	.057	-11.104	.115
9	Medium	High	11.051(*)	2.338	.000	5.441	16.661
		Low	-16.545(*)	2.702	.000	-23.029	-10.062
		Medium	-11.051(*)	2.338	.000	-16.661	-5.441
	Low	Medium	4.986	2.252	.080	-.416	10.388
		High	17.875(*)	2.602	.000	11.631	24.119
		Low	-4.986	2.252	.080	-10.388	.416
10	Medium	High	12.889(*)	2.252	.000	7.487	18.291
		Low	-17.875(*)	2.602	.000	-24.119	-11.631
		Medium	-12.889(*)	2.252	.000	-18.291	-7.487
	Low	Medium	5.122	2.280	.074	-.348	10.593
		High	15.659(*)	2.635	.000	9.336	21.982
		Low	-5.122	2.280	.074	-10.593	.348
11	Medium	High	10.537(*)	2.280	.000	5.067	16.008
		Low	-15.659(*)	2.635	.000	-21.982	-9.336
		Medium	-10.537(*)	2.280	.000	-16.008	-5.067
	Low	Medium	6.222(*)	2.229	.017	.873	11.571
		High	17.136(*)	2.577	.000	10.954	23.318

12	Medium	Low	-6.222(*)	2.229	.017	-11.571	-.873
		High	10.914(*)	2.229	.000	5.565	16.263
	High	Low	-17.136(*)	2.577	.000	-23.318	-10.954
		Medium	-10.914(*)	2.229	.000	-16.263	-5.565
	Low	Medium	6.071(*)	2.236	.021	.706	11.436
		High	17.284(*)	2.585	.000	11.083	23.485
	Medium	Low	-6.071(*)	2.236	.021	-11.436	-.706
		High	11.213(*)	2.236	.000	5.848	16.578
	High	Low	-17.284(*)	2.585	.000	-23.485	-11.083
		Medium	-11.213(*)	2.236	.000	-16.578	-5.848

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Net Income Level 1	Low	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3074.906	1	3074.906	5.987	.016	.064	.677
	Quadratic	653.012	1	653.012	2.779	.099	.031	.378
	Cubic	90.669	1	90.669	.540	.464	.006	.112

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Net Income Level 2	Medium	177

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	18811.356	1	18811.356	45.879	.000	.207	1.000
	Quadratic	142.089	1	142.089	.714	.399	.004	.134
	Cubic	212.742	1	212.742	1.432	.233	.008	.222

a. Computed using alpha = .05

### Between-Subjects Factors

	Value Label	N
Net Income Level	3	88

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	33930.406	1	33930.406	67.170	.000	.436	1.000
	Quadratic	4033.807	1	4033.807	18.992	.000	.179	.991
	Cubic	1141.156	1	1141.156	8.484	.005	.089	.821

a. Computed using alpha = .05

## General Linear Model of Level of Net Income for Total CSR

### Between-Subjects Factors

	Value Label	N
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Net Income Level	1	Low	88
	2	Medium	177
	3	High	88

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	42630.220	11	3875.475	6.421	.000	.018	1.000
	Greenhouse-Geisser	42630.220	4.756	8963.240	6.421	.000	.018	.996
	Huynh-Feldt	42630.220	4.857	8776.755	6.421	.000	.018	.997
	Lower-bound	42630.220	1.000	42630.220	6.421	.012	.018	.715
year * nilevel	Sphericity Assumed	43142.205	22	1961.009	3.249	.000	.018	1.000
	Greenhouse-Geisser	43142.205	9.512	4535.444	3.249	.000	.018	.987
	Huynh-Feldt	43142.205	9.714	4441.082	3.249	.000	.018	.988
	Lower-bound	43142.205	2.000	21571.103	3.249	.040	.018	.617
Error(year)	Sphericity Assumed	2323777.497	3850	603.579				
	Greenhouse-Geisser	2323777.497	1664.641	1395.963				
	Huynh-Feldt	2323777.497	1700.011	1366.919				
	Lower-bound	2323777.497	350.000	6639.364				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	23074.664	1	23074.664	9.796	.002	.027	.877
	Quadratic	14204.512	1	14204.512	11.509	.001	.032	.923
	Cubic	421.595	1	421.595	.624	.430	.002	.124
year * nilevel	Linear	32924.706	2	16462.353	6.989	.001	.038	.925
	Quadratic	391.435	2	195.717	.159	.853	.001	.074

Error(year)	Cubic	171.619	2	85.809	.127	.881	.001	.069
	Linear	824448.825	350	2355.568				
	Quadratic	431976.076	350	1234.217				
	Cubic	236601.945	350	676.006				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
nilevel	66721.354	2	33360.677	1.722	.180	.010	.361
Error	6779212.501	350	19369.179				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Net Income Level

#### Estimates

Measure: MEASURE\_1

Net Income Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	306.682	4.283	298.259	315.105
Medium	297.139	3.020	291.200	303.078
High	298.536	4.283	290.113	306.959

#### Pairwise Comparisons



Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Net Income Level	(J) Net Income Level				Upper Bound	Lower Bound
Low	Medium	9.543	5.240	.194	-3.030	22.116
	High	8.146	6.057	.448	-6.386	22.677
Medium	Low	-9.543	5.240	.194	-22.116	3.030
	High	-1.397	5.240	.991	-13.970	11.176
High	Low	-8.146	6.057	.448	-22.677	6.386
	Medium	1.397	5.240	.991	-11.176	13.970

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	5560.113	2	2780.056	1.722	.180	.010	.361
Error	564934.375	350	1614.098				

The F tests the effect of Net Income Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	301.453	2.157	297.211	305.694
2	303.320	2.365	298.669	307.971

3	303.395	2.546	298.388	308.402
4	302.202	2.648	296.994	307.410
5	301.944	2.622	296.787	307.101
6	303.403	2.526	298.436	308.370
7	305.040	2.712	299.706	310.375
8	300.667	2.802	295.156	306.177
9	300.644	2.751	295.234	306.054
10	299.185	2.675	293.924	304.446
11	294.296	2.748	288.891	299.700
12	293.878	2.745	288.479	299.277

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.867	1.249	1.000	-6.103	2.370
	3	-1.943	1.541	1.000	-7.166	3.281
	4	-.749	1.944	1.000	-7.339	5.841
	5	-.492	2.053	1.000	-7.454	6.471
	6	-1.950	2.201	1.000	-9.414	5.514
	7	-3.587	2.336	1.000	-11.508	4.333
	8	.786	2.369	1.000	-7.245	8.818
	9	.809	2.262	1.000	-6.859	8.477
	10	2.267	2.242	1.000	-5.335	9.870
	11	7.157	2.401	.184	-.984	15.299
	12	7.575	2.434	.124	-.677	15.827
	2	1.867	1.249	1.000	-2.370	6.103
2	3	-.076	1.192	1.000	-4.117	3.966
	4	1.118	1.750	1.000	-4.817	7.052
	5	1.375	1.951	1.000	-5.241	7.992
	6					

3	6	-.083	2.136	1.000	-7.325	7.158
	7	-1.721	2.271	1.000	-9.421	5.980
	8	2.653	2.245	1.000	-4.960	10.266
	9	2.676	2.221	1.000	-4.857	10.208
	10	4.134	2.210	.986	-3.359	11.627
	11	9.024(*)	2.339	.009	1.092	16.956
	12	9.442(*)	2.363	.005	1.429	17.454
	1	1.943	1.541	1.000	-3.281	7.166
	2	.076	1.192	1.000	-3.966	4.117
	4	1.193	1.583	1.000	-4.173	6.560
	5	1.451	1.941	1.000	-5.129	8.031
	6	-.008	2.116	1.000	-7.182	7.167
4	7	-1.645	2.291	1.000	-9.412	6.122
	8	2.729	2.255	1.000	-4.918	10.376
	9	2.751	2.230	1.000	-4.811	10.314
	10	4.210	2.234	.984	-3.366	11.786
	11	9.100(*)	2.322	.007	1.226	16.974
	12	9.518(*)	2.336	.004	1.596	17.439
	1	.749	1.944	1.000	-5.841	7.339
	2	-1.118	1.750	1.000	-7.052	4.817
	3	-1.193	1.583	1.000	-6.560	4.173
	5	.258	1.325	1.000	-4.234	4.749
	6	-1.201	1.776	1.000	-7.223	4.821
	7	-2.838	1.946	1.000	-9.437	3.760
5	8	1.535	2.004	1.000	-5.260	8.331
	9	1.558	2.067	1.000	-5.451	8.568
	10	3.017	2.099	1.000	-4.100	10.133
	11	7.907(*)	2.220	.027	.379	15.434
	12	8.324(*)	2.180	.010	.934	15.715
	1	.492	2.053	1.000	-6.471	7.454
	2	-1.375	1.951	1.000	-7.992	5.241
	3	-1.451	1.941	1.000	-8.031	5.129
	4	-.258	1.325	1.000	-4.749	4.234

6	6	-1.459	1.495	1.000	-6.529	3.612
	7	-3.096	1.751	.995	-9.034	2.842
	8	1.278	1.943	1.000	-5.310	7.866
	9	1.300	1.981	1.000	-5.417	8.018
	10	2.759	2.054	1.000	-4.206	9.724
	11	7.649(*)	2.200	.037	.190	15.108
	12	8.067(*)	2.171	.015	.705	15.428
	1	1.950	2.201	1.000	-5.514	9.414
	2	.083	2.136	1.000	-7.158	7.325
	3	.008	2.116	1.000	-7.167	7.182
	4	1.201	1.776	1.000	-4.821	7.223
	5	1.459	1.495	1.000	-3.612	6.529
7	7	-1.637	1.236	1.000	-5.827	2.552
	8	2.736	1.605	.998	-2.706	8.178
	9	2.759	1.727	1.000	-3.096	8.615
	10	4.218	1.890	.828	-2.192	10.627
	11	9.107(*)	2.108	.001	1.961	16.254
	12	9.525(*)	2.100	.001	2.405	16.645
	1	3.587	2.336	1.000	-4.333	11.508
	2	1.721	2.271	1.000	-5.980	9.421
	3	1.645	2.291	1.000	-6.122	9.412
	4	2.838	1.946	1.000	-3.760	9.437
	5	3.096	1.751	.995	-2.842	9.034
	6	1.637	1.236	1.000	-2.552	5.827
8	8	4.374	1.396	.116	-.359	9.106
	9	4.396	1.567	.296	-.917	9.710
	10	5.855	1.807	.083	-.272	11.982
	11	10.745(*)	2.088	.000	3.666	17.824
	12	11.162(*)	2.073	.000	4.132	18.193
	1	-.786	2.369	1.000	-8.818	7.245
	2	-2.653	2.245	1.000	-10.266	4.960
	3	-2.729	2.255	1.000	-10.376	4.918
	4	-1.535	2.004	1.000	-8.331	5.260

9	5	-1.278	1.943	1.000	-7.866	5.310
	6	-2.736	1.605	.998	-8.178	2.706
	7	-4.374	1.396	.116	-9.106	.359
	9	.023	1.141	1.000	-3.846	3.891
	10	1.481	1.559	1.000	-3.806	6.769
	11	6.371(*)	1.787	.027	.312	12.430
	12	6.789(*)	1.880	.023	.415	13.163
	1	-.809	2.262	1.000	-8.477	6.859
	2	-2.676	2.221	1.000	-10.208	4.857
	3	-2.751	2.230	1.000	-10.314	4.811
	4	-1.558	2.067	1.000	-8.568	5.451
	5	-1.300	1.981	1.000	-8.018	5.417
10	6	-2.759	1.727	1.000	-8.615	3.096
	7	-4.396	1.567	.296	-9.710	.917
	8	-.023	1.141	1.000	-3.891	3.846
	10	1.459	1.350	1.000	-3.118	6.035
	11	6.348(*)	1.644	.009	.775	11.921
	12	6.766(*)	1.727	.007	.909	12.623
	1	-2.267	2.242	1.000	-9.870	5.335
	2	-4.134	2.210	.986	-11.627	3.359
	3	-4.210	2.234	.984	-11.786	3.366
	4	-3.017	2.099	1.000	-10.133	4.100
	5	-2.759	2.054	1.000	-9.724	4.206
	6	-4.218	1.890	.828	-10.627	2.192
11	7	-5.855	1.807	.083	-11.982	.272
	8	-1.481	1.559	1.000	-6.769	3.806
	9	-1.459	1.350	1.000	-6.035	3.118
	11	4.890(*)	1.130	.001	1.058	8.721
	12	5.308(*)	1.353	.007	.720	9.895
	1	-7.157	2.401	.184	-15.299	.984
	2	-9.024(*)	2.339	.009	-16.956	-1.092
	3	-9.100(*)	2.322	.007	-16.974	-1.226
	4	-7.907(*)	2.220	.027	-15.434	-.379

12	5	-7.649(*)	2.200	.037	-15.108	-.190
	6	-9.107(*)	2.108	.001	-16.254	-1.961
	7	-10.745(*)	2.088	.000	-17.824	-3.666
	8	-6.371(*)	1.787	.027	-12.430	-.312
	9	-6.348(*)	1.644	.009	-11.921	-.775
	10	-4.890(*)	1.130	.001	-8.721	-1.058
	12	.418	.974	1.000	-2.884	3.720
	1	-7.575	2.434	.124	-15.827	.677
	2	-9.442(*)	2.363	.005	-17.454	-1.429
	3	-9.518(*)	2.336	.004	-17.439	-1.596
	4	-8.324(*)	2.180	.010	-15.715	-.934
	5	-8.067(*)	2.171	.015	-15.428	-.705
	6	-9.525(*)	2.100	.001	-16.645	-2.405
	7	-11.162(*)	2.073	.000	-18.193	-4.132
	8	-6.789(*)	1.880	.023	-13.163	-.415
	9	-6.766(*)	1.727	.007	-12.623	-.909
	10	-5.308(*)	1.353	.007	-9.895	-.720
	11	-.418	.974	1.000	-3.720	2.884

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Net Income Level \* year

Measure: MEASURE\_1

Net Income Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	300.295	4.094	292.243	308.348
	2	305.159	4.489	296.330	313.989
	3	306.250	4.833	296.745	315.755
	4	306.125	5.027	296.237	316.013
	5	307.886	4.978	298.096	317.676
	6	307.398	4.795	297.968	316.828
	7	310.125	5.149	299.998	320.252

Medium	8	306.580	5.319	296.118	317.041
	9	310.136	5.222	299.867	320.406
	10	309.511	5.078	299.524	319.499
	11	306.182	5.217	295.922	316.442
	12	304.534	5.212	294.284	314.784
	1	295.904	2.887	290.226	301.582
	2	299.243	3.165	293.017	305.469
	3	299.243	3.408	292.541	305.945
	4	299.322	3.545	292.350	306.294
	5	299.367	3.510	292.464	306.270
	6	297.198	3.381	290.548	303.847
	7	299.746	3.631	292.605	306.886
High	8	299.034	3.751	291.657	306.410
	9	299.000	3.682	291.759	306.241
	10	297.136	3.581	290.093	304.178
	11	290.955	3.678	283.720	298.189
	12	289.520	3.675	282.293	296.747
	1	308.159	4.094	300.107	316.211
	2	305.557	4.489	296.727	314.386
	3	304.693	4.833	295.188	314.199
	4	301.159	5.027	291.271	311.047
	5	298.580	4.978	288.789	308.370
	6	305.614	4.795	296.183	315.044
	7	305.250	5.149	295.123	315.377
	8	296.386	5.319	285.925	306.848
	9	292.795	5.222	282.526	303.065
	10	290.909	5.078	280.922	300.897
	11	285.750	5.217	275.490	296.010
	12	287.580	5.212	277.330	297.829

## APPENDIX M

### Complete Mixed Model ANOVAs with Post Hoc Tests of CSR Analyses with Level of Total Assets

#### *General Linear Model of Level of Total Assets for Community Relations*

##### Between-Subjects Factors

		Value Label	N
TA Level	1	Low	88
	2	Medium	176
	3	High	88

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	22786.791	11	2071.526	21.087	.000	.057	1.000
	Greenhouse-Geisser	22786.791	4.243	5371.009	21.087	.000	.057	1.000
	Huynh-Feldt	22786.791	4.326	5267.552	21.087	.000	.057	1.000
	Lower-bound	22786.791	1.000	22786.791	21.087	.000	.057	.996
year * TAllevel	Sphericity Assumed	13034.979	22	592.499	6.031	.000	.033	1.000
	Greenhouse-Geisser	13034.979	8.485	1536.219	6.031	.000	.033	1.000
	Huynh-Feldt	13034.979	8.652	1506.628	6.031	.000	.033	1.000
	Lower-bound	13034.979	2.000	6517.490	6.031	.003	.033	.882
Error(year)	Sphericity Assumed	377140.921	3839	98.239				
	Greenhouse-Geisser	377140.921	1480.651	254.713				
	Huynh-Feldt	377140.921	1509.732	249.807				



Lower-bound	377140.921	349.000	1080.633				
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	19908.636	1	19908.636	47.701	.000	.120	1.000
	Quadratic	327.794	1	327.794	2.010	.157	.006	.293
	Cubic	1295.063	1	1295.063	12.484	.000	.035	.941
year * Tlevel	Linear	10428.243	2	5214.122	12.493	.000	.067	.996
	Quadratic	91.106	2	45.553	.279	.756	.002	.094
	Cubic	401.753	2	200.877	1.936	.146	.011	.401
Error(year)	Linear	145659.462	349	417.362				
	Quadratic	56918.256	349	163.090				
	Cubic	36203.774	349	103.736				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Tlevel	30023.876	2	15011.938	6.957	.001	.038	.924
Error	753097.431	349	2157.872				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.729	.899	49.960	53.498
2	53.042	.946	51.181	54.902
3	53.875	1.065	51.780	55.970
4	51.498	.973	49.584	53.412
5	51.222	.977	49.300	53.143
6	50.237	.881	48.504	51.970
7	50.547	.917	48.744	52.351
8	48.727	.900	46.956	50.498
9	48.085	.916	46.284	49.886
10	46.585	.836	44.941	48.230
11	46.227	.837	44.581	47.874
12	46.911	.904	45.134	48.688

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.313	.483	.368	-2.951	.326
	3	-2.146	.691	.128	-4.490	.198
	4	.231	.796	1.000	-2.469	2.931
	5	.508	.881	1.000	-2.481	3.496
	6	1.492	.901	.999	-1.561	4.546
	7	1.182	.912	1.000	-1.909	4.273
	8	3.002	.909	.068	-.081	6.085

2	9	3.644(*)	.906	.005	.572	6.716
	10	5.144(*)	.904	.000	2.079	8.209
	11	5.502(*)	.916	.000	2.397	8.607
	12	4.818(*)	.953	.000	1.586	8.050
	1	1.313	.483	.368	-.326	2.951
	3	-.833	.524	1.000	-2.609	.942
	4	1.544	.736	.915	-.953	4.040
	5	1.820	.839	.873	-1.025	4.665
	6	2.805	.900	.123	-.247	5.857
	7	2.494	.928	.394	-.653	5.642
	8	4.314(*)	.921	.000	1.191	7.438
	9	4.956(*)	.929	.000	1.807	8.106
3	10	6.456(*)	.924	.000	3.322	9.591
	11	6.814(*)	.946	.000	3.608	10.021
	12	6.131(*)	.981	.000	2.806	9.456
	1	2.146	.691	.128	-.198	4.490
	2	.833	.524	1.000	-.942	2.609
	4	2.377(*)	.654	.021	.160	4.594
	5	2.653	.831	.097	-.165	5.472
	6	3.638(*)	.913	.005	.541	6.736
	7	3.328(*)	.946	.032	.121	6.534
	8	5.148(*)	.945	.000	1.945	8.351
	9	5.790(*)	.957	.000	2.545	9.035
	10	7.290(*)	.968	.000	4.008	10.571
4	11	7.648(*)	.999	.000	4.259	11.036
	12	6.964(*)	1.045	.000	3.421	10.507
	1	-.231	.796	1.000	-2.931	2.469
	2	-1.544	.736	.915	-4.040	.953
	3	-2.377(*)	.654	.021	-4.594	-.160
	5	.277	.613	1.000	-1.803	2.356
	6	1.261	.769	.999	-1.348	3.871
	7	.951	.807	1.000	-1.787	3.689
	8	2.771	.839	.068	-.075	5.617

5	9	3.413(*)	.844	.004	.551	6.275
	10	4.913(*)	.857	.000	2.007	7.819
	11	5.271(*)	.891	.000	2.250	8.292
	12	4.587(*)	.944	.000	1.388	7.787
	1	-.508	.881	1.000	-3.496	2.481
	2	-1.820	.839	.873	-4.665	1.025
	3	-2.653	.831	.097	-5.472	.165
	4	-.277	.613	1.000	-2.356	1.803
	6	.985	.612	.999	-1.091	3.061
	7	.674	.724	1.000	-1.780	3.129
	8	2.494	.799	.120	-.214	5.203
	9	3.136(*)	.857	.019	.230	6.043
6	10	4.636(*)	.856	.000	1.733	7.539
	11	4.994(*)	.865	.000	2.060	7.929
	12	4.311(*)	.891	.000	1.289	7.332
	1	-1.492	.901	.999	-4.546	1.561
	2	-2.805	.900	.123	-5.857	.247
	3	-3.638(*)	.913	.005	-6.736	-.541
	4	-1.261	.769	.999	-3.871	1.348
	5	-.985	.612	.999	-3.061	1.091
	7	-.311	.525	1.000	-2.091	1.470
	8	1.509	.649	.748	-.693	3.712
	9	2.152	.735	.215	-.342	4.645
	10	3.652(*)	.770	.000	1.040	6.263
7	11	4.009(*)	.774	.000	1.386	6.633
	12	3.326(*)	.772	.001	.707	5.944
	1	-1.182	.912	1.000	-4.273	1.909
	2	-2.494	.928	.394	-5.642	.653
	3	-3.328(*)	.946	.032	-6.534	-.121
	4	-.951	.807	1.000	-3.689	1.787
	5	-.674	.724	1.000	-3.129	1.780
	6	.311	.525	1.000	-1.470	2.091
	8	1.820	.543	.057	-.021	3.661

8	9	2.462(*)	.640	.009	.293	4.631
	10	3.962(*)	.695	.000	1.604	6.320
	11	4.320(*)	.718	.000	1.886	6.754
	12	3.636(*)	.688	.000	1.304	5.969
	1	-3.002	.909	.068	-6.085	.081
	2	-4.314(*)	.921	.000	-7.438	-1.191
	3	-5.148(*)	.945	.000	-8.351	-1.945
	4	-2.771	.839	.068	-5.617	.075
	5	-2.494	.799	.120	-5.203	.214
	6	-1.509	.649	.748	-3.712	.693
	7	-1.820	.543	.057	-3.661	.021
	9	.642	.383	.999	-.656	1.940
9	10	2.142(*)	.547	.007	.288	3.996
	11	2.500(*)	.573	.001	.556	4.444
	12	1.816	.582	.121	-.156	3.789
	1	-3.644(*)	.906	.005	-6.716	-.572
	2	-4.956(*)	.929	.000	-8.106	-1.807
	3	-5.790(*)	.957	.000	-9.035	-2.545
	4	-3.413(*)	.844	.004	-6.275	-.551
	5	-3.136(*)	.857	.019	-6.043	-.230
	6	-2.152	.735	.215	-4.645	.342
	7	-2.462(*)	.640	.009	-4.631	-.293
	8	-.642	.383	.999	-1.940	.656
	10	1.500	.452	.063	-.031	3.031
10	11	1.858(*)	.540	.042	.026	3.690
	12	1.174	.565	.925	-.743	3.091
	1	-5.144(*)	.904	.000	-8.209	-2.079
	2	-6.456(*)	.924	.000	-9.591	-3.322
	3	-7.290(*)	.968	.000	-10.571	-4.008
	4	-4.913(*)	.857	.000	-7.819	-2.007
	5	-4.636(*)	.856	.000	-7.539	-1.733
	6	-3.652(*)	.770	.000	-6.263	-1.040
	7	-3.962(*)	.695	.000	-6.320	-1.604

11	8	-2.142(*)	.547	.007	-3.996	-.288
	9	-1.500	.452	.063	-3.031	.031
	11	.358	.331	1.000	-.764	1.480
	12	-.326	.516	1.000	-2.076	1.424
	1	-5.502(*)	.916	.000	-8.607	-2.397
	2	-6.814(*)	.946	.000	-10.021	-3.608
	3	-7.648(*)	.999	.000	-11.036	-4.259
	4	-5.271(*)	.891	.000	-8.292	-2.250
	5	-4.994(*)	.865	.000	-7.929	-2.060
	6	-4.009(*)	.774	.000	-6.633	-1.386
	7	-4.320(*)	.718	.000	-6.754	-1.886
12	8	-2.500(*)	.573	.001	-4.444	-.556
	9	-1.858(*)	.540	.042	-3.690	-.026
	10	-.358	.331	1.000	-1.480	.764
	12	-.684	.389	.996	-2.003	.635
	1	-4.818(*)	.953	.000	-8.050	-1.586
	2	-6.131(*)	.981	.000	-9.456	-2.806
	3	-6.964(*)	1.045	.000	-10.507	-3.421
	4	-4.587(*)	.944	.000	-7.787	-1.388
	5	-4.311(*)	.891	.000	-7.332	-1.289
	6	-3.326(*)	.772	.001	-5.944	-.707
	7	-3.636(*)	.688	.000	-5.969	-1.304
	8	-1.816	.582	.121	-3.789	.156
	9	-1.174	.565	.925	-3.091	.743
	10	.326	.516	1.000	-1.424	2.076
	11	.684	.389	.996	-.635	2.003

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. TA Level

Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	46.768	1.429	43.956	49.579
Medium	48.896	1.011	46.908	50.884
High	54.008	1.429	51.196	56.819

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2501.990	2	1250.995	6.957	.001	.038	.924
Error	62758.119	349	179.823				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-2.128	1.751	.535	-6.328	2.073
	High	-7.240(*)	2.022	.001	-12.090	-2.389
Medium	Low	2.128	1.751	.535	-2.073	6.328
	High	-5.112(*)	1.751	.011	-9.312	-.911
High	Low	7.240(*)	2.022	.001	2.389	12.090
	Medium	5.112(*)	1.751	.011	.911	9.312

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

#### Estimates

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.602	1.706	43.246	49.958
	2	47.523	1.795	43.993	51.052
	3	48.136	2.021	44.162	52.111
	4	47.216	1.846	43.585	50.847
	5	47.216	1.854	43.570	50.862
	6	45.989	1.672	42.700	49.277
	7	46.909	1.740	43.487	50.331
	8	46.909	1.708	43.549	50.269
	9	46.716	1.738	43.298	50.133
	10	46.102	1.586	42.982	49.222
	11	46.102	1.588	42.978	49.226
	12	45.795	1.715	42.423	49.168
Medium	1	49.381	1.207	47.008	51.754
	2	50.455	1.269	47.959	52.950
	3	51.932	1.429	49.121	54.742
	4	51.313	1.306	48.745	53.880
	5	51.517	1.311	48.939	54.095
	6	49.165	1.182	46.840	51.490
	7	49.074	1.230	46.654	51.494
	8	47.511	1.208	45.135	49.887
	9	46.767	1.229	44.351	49.184
	10	46.869	1.122	44.663	49.076
	11	46.182	1.123	43.973	48.391
	12	46.585	1.212	44.201	48.970
High	1	59.205	1.706	55.849	62.560



2	61.148	1.795	57.618	64.677
3	61.557	2.021	57.582	65.531
4	55.966	1.846	52.335	59.597
5	54.932	1.854	51.286	58.578
6	55.557	1.672	52.268	58.845
7	55.659	1.740	52.237	59.081
8	51.761	1.708	48.401	55.121
9	50.773	1.738	47.355	54.190
10	46.784	1.586	43.664	49.904
11	46.398	1.588	43.274	49.522
12	48.352	1.715	44.980	51.725

#### Multivariate Tests

TA Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.013	.401(b)	11.000	339.000	.955	.013	.220
	Wilks' lambda	.987	.401(b)	11.000	339.000	.955	.013	.220
	Hotelling's trace	.013	.401(b)	11.000	339.000	.955	.013	.220
	Roy's largest root	.013	.401(b)	11.000	339.000	.955	.013	.220
Medium	Pillai's trace	.079	2.647(b)	11.000	339.000	.003	.079	.972
	Wilks' lambda	.921	2.647(b)	11.000	339.000	.003	.079	.972
	Hotelling's trace	.086	2.647(b)	11.000	339.000	.003	.079	.972
	Roy's largest root	.086	2.647(b)	11.000	339.000	.003	.079	.972
High	Pillai's trace	.217	8.520(b)	11.000	339.000	.000	.217	1.000
	Wilks' lambda	.783	8.520(b)	11.000	339.000	.000	.217	1.000
	Hotelling's trace	.276	8.520(b)	11.000	339.000	.000	.217	1.000
	Roy's largest root	.276	8.520(b)	11.000	339.000	.000	.217	1.000

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

TA Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
Low	1	2	-.920	.917	1.000	-4.029	2.188
		3	-1.534	1.312	1.000	-5.982	2.914
		4	-.614	1.511	1.000	-5.736	4.509
		5	-.614	1.672	1.000	-6.285	5.057
		6	.614	1.709	1.000	-5.180	6.407
		7	-.307	1.730	1.000	-6.171	5.558
		8	-.307	1.725	1.000	-6.156	5.543
		9	-.114	1.719	1.000	-5.942	5.715
		10	.500	1.715	1.000	-5.315	6.315
		11	.500	1.738	1.000	-5.392	6.392
		12	.807	1.808	1.000	-5.325	6.939
	2	1	.920	.917	1.000	-2.188	4.029
		3	-.614	.993	1.000	-3.982	2.755
		4	.307	1.397	1.000	-4.429	5.043
		5	.307	1.592	1.000	-5.092	5.706
		6	1.534	1.708	1.000	-4.257	7.325
		7	.614	1.761	1.000	-5.358	6.585
		8	.614	1.748	1.000	-5.312	6.540
		9	.807	1.762	1.000	-5.168	6.782
		10	1.420	1.754	1.000	-4.526	7.367
		11	1.420	1.794	1.000	-4.663	7.504
		12	1.727	1.860	1.000	-4.581	8.036
	3	1	1.534	1.312	1.000	-2.914	5.982
		2	.614	.993	1.000	-2.755	3.982
		4	.920	1.241	1.000	-3.286	5.127
		5	.920	1.577	1.000	-4.427	6.268
		6	2.148	1.733	1.000	-3.729	8.024

4	7	1.227	1.794	1.000	-4.856	7.311
	8	1.227	1.792	1.000	-4.850	7.304
	9	1.420	1.816	1.000	-4.736	7.577
	10	2.034	1.836	1.000	-4.192	8.260
	11	2.034	1.896	1.000	-4.396	8.464
	12	2.341	1.983	1.000	-4.382	9.064
	1	.614	1.511	1.000	-4.509	5.736
	2	-.307	1.397	1.000	-5.043	4.429
	3	-.920	1.241	1.000	-5.127	3.286
	5	.000	1.163	1.000	-3.945	3.945
	6	1.227	1.460	1.000	-3.723	6.178
	7	.307	1.532	1.000	-4.888	5.501
5	8	.307	1.592	1.000	-5.093	5.707
	9	.500	1.602	1.000	-4.931	5.931
	10	1.114	1.626	1.000	-4.400	6.627
	11	1.114	1.690	1.000	-4.618	6.845
	12	1.420	1.790	1.000	-4.650	7.491
	1	.614	1.672	1.000	-5.057	6.285
	2	-.307	1.592	1.000	-5.706	5.092
	3	-.920	1.577	1.000	-6.268	4.427
	4	.000	1.163	1.000	-3.945	3.945
	6	1.227	1.162	1.000	-2.712	5.167
	7	.307	1.374	1.000	-4.351	4.964
	8	.307	1.516	1.000	-4.832	5.446
6	9	.500	1.626	1.000	-5.015	6.015
	10	1.114	1.624	1.000	-4.395	6.622
	11	1.114	1.642	1.000	-4.454	6.681
	12	1.420	1.691	1.000	-4.313	7.153
	1	-.614	1.709	1.000	-6.407	5.180
	2	-1.534	1.708	1.000	-7.325	4.257
	3	-2.148	1.733	1.000	-8.024	3.729
	4	-1.227	1.460	1.000	-6.178	3.723
	5	-1.227	1.162	1.000	-5.167	2.712

7	7	-.920	.996	1.000	-4.299	2.458
	8	-.920	1.232	1.000	-5.099	3.258
	9	-.727	1.395	1.000	-5.459	4.004
	10	-.114	1.461	1.000	-5.069	4.842
	11	-.114	1.468	1.000	-5.091	4.863
	12	.193	1.465	1.000	-4.775	5.161
	1	.307	1.730	1.000	-5.558	6.171
	2	-.614	1.761	1.000	-6.585	5.358
	3	-1.227	1.794	1.000	-7.311	4.856
	4	-.307	1.532	1.000	-5.501	4.888
	5	-.307	1.374	1.000	-4.964	4.351
	6	.920	.996	1.000	-2.458	4.299
8	8	.000	1.030	1.000	-3.493	3.493
	9	.193	1.214	1.000	-3.922	4.308
	10	.807	1.319	1.000	-3.667	5.281
	11	.807	1.362	1.000	-3.811	5.425
	12	1.114	1.305	1.000	-3.312	5.540
	1	.307	1.725	1.000	-5.543	6.156
	2	-.614	1.748	1.000	-6.540	5.312
	3	-1.227	1.792	1.000	-7.304	4.850
	4	-.307	1.592	1.000	-5.707	5.093
	5	-.307	1.516	1.000	-5.446	4.832
	6	.920	1.232	1.000	-3.258	5.099
	7	.000	1.030	1.000	-3.493	3.493
9	9	.193	.727	1.000	-2.270	2.657
	10	.807	1.037	1.000	-2.711	4.325
	11	.807	1.088	1.000	-2.881	4.495
	12	1.114	1.104	1.000	-2.629	4.856
	1	.114	1.719	1.000	-5.715	5.942
	2	-.807	1.762	1.000	-6.782	5.168
	3	-1.420	1.816	1.000	-7.577	4.736
	4	-.500	1.602	1.000	-5.931	4.931
	5	-.500	1.626	1.000	-6.015	5.015

10	6	.727	1.395	1.000	-4.004	5.459
	7	-.193	1.214	1.000	-4.308	3.922
	8	-.193	.727	1.000	-2.657	2.270
	10	.614	.857	1.000	-2.291	3.519
	11	.614	1.025	1.000	-2.863	4.090
	12	.920	1.073	1.000	-2.717	4.558
	1	-.500	1.715	1.000	-6.315	5.315
	2	-1.420	1.754	1.000	-7.367	4.526
	3	-2.034	1.836	1.000	-8.260	4.192
	4	-1.114	1.626	1.000	-6.627	4.400
	5	-1.114	1.624	1.000	-6.622	4.395
	6	.114	1.461	1.000	-4.842	5.069
11	7	-.807	1.319	1.000	-5.281	3.667
	8	-.807	1.037	1.000	-4.325	2.711
	9	-.614	.857	1.000	-3.519	2.291
	11	7.11E-015	.628	1.000	-2.128	2.128
	12	.307	.979	1.000	-3.014	3.627
	1	-.500	1.738	1.000	-6.392	5.392
	2	-1.420	1.794	1.000	-7.504	4.663
	3	-2.034	1.896	1.000	-8.464	4.396
	4	-1.114	1.690	1.000	-6.845	4.618
	5	-1.114	1.642	1.000	-6.681	4.454
	6	.114	1.468	1.000	-4.863	5.091
	7	-.807	1.362	1.000	-5.425	3.811
12	8	-.807	1.088	1.000	-4.495	2.881
	9	-.614	1.025	1.000	-4.090	2.863
	10	-7.11E-015	.628	1.000	-2.128	2.128
	12	.307	.738	1.000	-2.196	2.810
	1	-.807	1.808	1.000	-6.939	5.325
	2	-1.727	1.860	1.000	-8.036	4.581
	3	-2.341	1.983	1.000	-9.064	4.382
	4	-1.420	1.790	1.000	-7.491	4.650
	5	-1.420	1.691	1.000	-7.153	4.313

Medium	1	6	-.193	1.465	1.000	-5.161	4.775
		7	-1.114	1.305	1.000	-5.540	3.312
		8	-1.114	1.104	1.000	-4.856	2.629
		9	-.920	1.073	1.000	-4.558	2.717
		10	-.307	.979	1.000	-3.627	3.014
		11	-.307	.738	1.000	-2.810	2.196
		2	-1.074	.648	.999	-3.272	1.124
		3	-2.551	.928	.339	-5.696	.594
		4	-1.932	1.068	.992	-5.554	1.690
		5	-2.136	1.183	.993	-6.146	1.874
		6	.216	1.208	1.000	-3.881	4.313
		7	.307	1.223	1.000	-3.840	4.454
	2	8	1.869	1.220	1.000	-2.267	6.005
		9	2.614	1.215	.885	-1.508	6.735
		10	2.511	1.213	.928	-1.600	6.623
		11	3.199	1.229	.472	-.967	7.365
		12	2.795	1.279	.861	-1.540	7.131
		1	1.074	.648	.999	-1.124	3.272
		3	-1.477	.702	.912	-3.859	.904
		4	-.858	.988	1.000	-4.207	2.491
		5	-1.063	1.126	1.000	-4.880	2.755
		6	1.290	1.208	1.000	-2.805	5.385
		7	1.381	1.245	1.000	-2.842	5.603
		8	2.943	1.236	.694	-1.247	7.133
	3	9	3.688	1.246	.196	-.538	7.913
		10	3.585	1.240	.236	-.620	7.790
		11	4.273	1.269	.054	-.029	8.574
		12	3.869	1.316	.206	-.591	8.330
		1	2.551	.928	.339	-.594	5.696
		2	1.477	.702	.912	-.904	3.859
		4	.619	.877	1.000	-2.355	3.594
		5	.415	1.115	1.000	-3.367	4.196
		6	2.767	1.226	.806	-1.388	6.922

4	7	2.858	1.269	.811	-1.444	7.160
	8	4.420(*)	1.267	.036	.123	8.718
	9	5.165(*)	1.284	.005	.811	9.518
	10	5.063(*)	1.298	.008	.660	9.465
	11	5.750(*)	1.341	.002	1.204	10.296
	12	5.347(*)	1.402	.011	.593	10.101
	1	1.932	1.068	.992	-1.690	5.554
	2	.858	.988	1.000	-2.491	4.207
	3	-.619	.877	1.000	-3.594	2.355
	5	-.205	.823	1.000	-2.994	2.585
	6	2.148	1.032	.924	-1.353	5.648
	7	2.239	1.083	.930	-1.435	5.912
5	8	3.801	1.126	.053	-.017	7.619
	9	4.545(*)	1.133	.005	.705	8.386
	10	4.443(*)	1.150	.009	.544	8.342
	11	5.131(*)	1.195	.002	1.078	9.183
	12	4.727(*)	1.266	.014	.435	9.020
	1	2.136	1.183	.993	-1.874	6.146
	2	1.063	1.126	1.000	-2.755	4.880
	3	-.415	1.115	1.000	-4.196	3.367
	4	.205	.823	1.000	-2.585	2.994
	6	2.352	.821	.255	-.433	5.138
	7	2.443	.971	.559	-.850	5.736
	8	4.006(*)	1.072	.014	.372	7.640
6	9	4.750(*)	1.150	.003	.850	8.650
	10	4.648(*)	1.149	.004	.753	8.543
	11	5.335(*)	1.161	.000	1.398	9.272
	12	4.932(*)	1.196	.003	.878	8.986
	1	-.216	1.208	1.000	-4.313	3.881
	2	-1.290	1.208	1.000	-5.385	2.805
	3	-2.767	1.226	.806	-6.922	1.388
	4	-2.148	1.032	.924	-5.648	1.353
	5	-2.352	.821	.255	-5.138	.433

7	7	.091	.705	1.000	-2.298	2.480
	8	1.653	.871	.981	-1.301	4.608
	9	2.398	.987	.646	-.948	5.743
	10	2.295	1.033	.835	-1.208	5.799
	11	2.983	1.038	.248	-.536	6.502
	12	2.580	1.036	.585	-.933	6.093
	1	-.307	1.223	1.000	-4.454	3.840
	2	-1.381	1.245	1.000	-5.603	2.842
	3	-2.858	1.269	.811	-7.160	1.444
	4	-2.239	1.083	.930	-5.912	1.435
	5	-2.443	.971	.559	-5.736	.850
	6	-.091	.705	1.000	-2.480	2.298
8	8	1.563	.728	.888	-.908	4.033
	9	2.307	.858	.393	-.603	5.217
	10	2.205	.933	.712	-.959	5.368
	11	2.892	.963	.172	-.373	6.157
	12	2.489	.923	.385	-.641	5.618
	1	-1.869	1.220	1.000	-6.005	2.267
	2	-2.943	1.236	.694	-7.133	1.247
	3	-4.420(*)	1.267	.036	-8.718	-.123
	4	-3.801	1.126	.053	-7.619	.017
	5	-4.006(*)	1.072	.014	-7.640	-.372
	6	-1.653	.871	.981	-4.608	1.301
	7	-1.563	.728	.888	-4.033	.908
9	9	.744	.514	1.000	-.998	2.486
	10	.642	.734	1.000	-1.845	3.130
	11	1.330	.769	.997	-1.278	3.937
	12	.926	.781	1.000	-1.720	3.573
	1	-2.614	1.215	.885	-6.735	1.508
	2	-3.688	1.246	.196	-7.913	.538
	3	-5.165(*)	1.284	.005	-9.518	-.811
	4	-4.545(*)	1.133	.005	-8.386	-.705
	5	-4.750(*)	1.150	.003	-8.650	-.850



10	6	-2.398	.987	.646	-5.743	.948
	7	-2.307	.858	.393	-5.217	.603
	8	-.744	.514	1.000	-2.486	.998
	10	-.102	.606	1.000	-2.156	1.952
	11	.585	.725	1.000	-1.873	3.044
	12	.182	.759	1.000	-2.390	2.754
	1	-2.511	1.213	.928	-6.623	1.600
	2	-3.585	1.240	.236	-7.790	.620
	3	-5.063(*)	1.298	.008	-9.465	-.660
	4	-4.443(*)	1.150	.009	-8.342	-.544
	5	-4.648(*)	1.149	.004	-8.543	-.753
	6	-2.295	1.033	.835	-5.799	1.208
11	7	-2.205	.933	.712	-5.368	.959
	8	-.642	.734	1.000	-3.130	1.845
	9	.102	.606	1.000	-1.952	2.156
	11	.688	.444	1.000	-.817	2.192
	12	.284	.692	1.000	-2.064	2.632
	1	-3.199	1.229	.472	-7.365	.967
	2	-4.273	1.269	.054	-8.574	.029
	3	-5.750(*)	1.341	.002	-10.296	-1.204
	4	-5.131(*)	1.195	.002	-9.183	-1.078
	5	-5.335(*)	1.161	.000	-9.272	-1.398
	6	-2.983	1.038	.248	-6.502	.536
	7	-2.892	.963	.172	-6.157	.373
12	8	-1.330	.769	.997	-3.937	1.278
	9	-.585	.725	1.000	-3.044	1.873
	10	-.688	.444	1.000	-2.192	.817
	12	-.403	.522	1.000	-2.173	1.366
	1	-2.795	1.279	.861	-7.131	1.540
	2	-3.869	1.316	.206	-8.330	.591
	3	-5.347(*)	1.402	.011	-10.101	-.593
	4	-4.727(*)	1.266	.014	-9.020	-.435
	5	-4.932(*)	1.196	.003	-8.986	-.878

High	1	6	-2.580	1.036	.585	-6.093	.933
		7	-2.489	.923	.385	-5.618	.641
		8	-.926	.781	1.000	-3.573	1.720
		9	-.182	.759	1.000	-2.754	2.390
		10	-.284	.692	1.000	-2.632	2.064
		11	.403	.522	1.000	-1.366	2.173
		2	-1.943	.917	.903	-5.051	1.165
		3	-2.352	1.312	.994	-6.800	2.096
		4	3.239	1.511	.889	-1.884	8.361
		5	4.273	1.672	.520	-1.398	9.944
		6	3.648	1.709	.894	-2.146	9.441
		7	3.545	1.730	.937	-2.319	9.410
	2	8	7.443(*)	1.725	.001	1.594	13.293
		9	8.432(*)	1.719	.000	2.603	14.260
		10	12.420(*)	1.715	.000	6.606	18.235
		11	12.807(*)	1.738	.000	6.915	18.699
		12	10.852(*)	1.808	.000	4.721	16.984
		1	1.943	.917	.903	-1.165	5.051
		3	-.409	.993	1.000	-3.777	2.959
		4	5.182(*)	1.397	.016	.446	9.918
		5	6.216(*)	1.592	.007	.817	11.615
		6	5.591	1.708	.074	-.200	11.382
		7	5.489	1.761	.123	-.483	11.460
		8	9.386(*)	1.748	.000	3.460	15.312
	3	9	10.375(*)	1.762	.000	4.400	16.350
		10	14.364(*)	1.754	.000	8.417	20.310
		11	14.750(*)	1.794	.000	8.666	20.834
		12	12.795(*)	1.860	.000	6.487	19.104
		1	2.352	1.312	.994	-2.096	6.800
		2	.409	.993	1.000	-2.959	3.777
		4	5.591(*)	1.241	.001	1.385	9.797
		5	6.625(*)	1.577	.002	1.277	11.973
		6	6.000(*)	1.733	.039	.123	11.877

4	7	5.898	1.794	.071	-.186	11.981
	8	9.795(*)	1.792	.000	3.718	15.873
	9	10.784(*)	1.816	.000	4.628	16.941
	10	14.773(*)	1.836	.000	8.547	20.999
	11	15.159(*)	1.896	.000	8.729	21.589
	12	13.205(*)	1.983	.000	6.481	19.928
	1	-3.239	1.511	.889	-8.361	1.884
	2	-5.182(*)	1.397	.016	-9.918	-.446
	3	-5.591(*)	1.241	.001	-9.797	-1.385
	5	1.034	1.163	1.000	-2.911	4.979
	6	.409	1.460	1.000	-4.541	5.360
	7	.307	1.532	1.000	-4.888	5.501
5	8	4.205	1.592	.437	-1.195	9.604
	9	5.193	1.602	.082	-.238	10.624
	10	9.182(*)	1.626	.000	3.668	14.695
	11	9.568(*)	1.690	.000	3.837	15.300
	12	7.614(*)	1.790	.002	1.543	13.684
	1	-4.273	1.672	.520	-9.944	1.398
	2	-6.216(*)	1.592	.007	-11.615	-.817
	3	-6.625(*)	1.577	.002	-11.973	-1.277
	4	-1.034	1.163	1.000	-4.979	2.911
	6	-.625	1.162	1.000	-4.564	3.314
	7	-.727	1.374	1.000	-5.385	3.930
	8	3.170	1.516	.918	-1.969	8.310
6	9	4.159	1.626	.517	-1.356	9.674
	10	8.148(*)	1.624	.000	2.639	13.656
	11	8.534(*)	1.642	.000	2.966	14.102
	12	6.580(*)	1.691	.008	.847	12.313
	1	-3.648	1.709	.894	-9.441	2.146
	2	-5.591	1.708	.074	-11.382	.200
	3	-6.000(*)	1.733	.039	-11.877	-.123
	4	-.409	1.460	1.000	-5.360	4.541
	5	.625	1.162	1.000	-3.314	4.564

7	7	-.102	.996	1.000	-3.481	3.276
	8	3.795	1.232	.137	-.383	7.974
	9	4.784(*)	1.395	.044	.053	9.516
	10	8.773(*)	1.461	.000	3.818	13.728
	11	9.159(*)	1.468	.000	4.182	14.136
	12	7.205(*)	1.465	.000	2.236	12.173
	1	-3.545	1.730	.937	-9.410	2.319
	2	-5.489	1.761	.123	-11.460	.483
	3	-5.898	1.794	.071	-11.981	.186
	4	-.307	1.532	1.000	-5.501	4.888
	5	.727	1.374	1.000	-3.930	5.385
	6	.102	.996	1.000	-3.276	3.481
8	8	3.898(*)	1.030	.012	.404	7.391
	9	4.886(*)	1.214	.005	.771	9.001
	10	8.875(*)	1.319	.000	4.401	13.349
	11	9.261(*)	1.362	.000	4.644	13.879
	12	7.307(*)	1.305	.000	2.881	11.733
	1	-7.443(*)	1.725	.001	-13.293	-1.594
	2	-9.386(*)	1.748	.000	-15.312	-3.460
	3	-9.795(*)	1.792	.000	-15.873	-3.718
	4	-4.205	1.592	.437	-9.604	1.195
	5	-3.170	1.516	.918	-8.310	1.969
	6	-3.795	1.232	.137	-7.974	.383
	7	-3.898(*)	1.030	.012	-7.391	-.404
9	9	.989	.727	1.000	-1.475	3.452
	10	4.977(*)	1.037	.000	1.459	8.495
	11	5.364(*)	1.088	.000	1.676	9.051
	12	3.409	1.104	.134	-.334	7.152
	1	-8.432(*)	1.719	.000	-14.260	-2.603
	2	-10.375(*)	1.762	.000	-16.350	-4.400
	3	-10.784(*)	1.816	.000	-16.941	-4.628
	4	-5.193	1.602	.082	-10.624	.238
	5	-4.159	1.626	.517	-9.674	1.356

10	6	-4.784(*)	1.395	.044	-9.516	-.053
	7	-4.886(*)	1.214	.005	-9.001	-.771
	8	-.989	.727	1.000	-3.452	1.475
	10	3.989(*)	.857	.000	1.084	6.894
	11	4.375(*)	1.025	.002	.898	7.852
	12	2.420	1.073	.808	-1.217	6.058
	1	-12.420(*)	1.715	.000	-18.235	-6.606
	2	-14.364(*)	1.754	.000	-20.310	-8.417
	3	-14.773(*)	1.836	.000	-20.999	-8.547
	4	-9.182(*)	1.626	.000	-14.695	-3.668
	5	-8.148(*)	1.624	.000	-13.656	-2.639
	6	-8.773(*)	1.461	.000	-13.728	-3.818
11	7	-8.875(*)	1.319	.000	-13.349	-4.401
	8	-4.977(*)	1.037	.000	-8.495	-1.459
	9	-3.989(*)	.857	.000	-6.894	-1.084
	11	.386	.628	1.000	-1.742	2.514
	12	-1.568	.979	1.000	-4.889	1.752
	1	-12.807(*)	1.738	.000	-18.699	-6.915
	2	-14.750(*)	1.794	.000	-20.834	-8.666
	3	-15.159(*)	1.896	.000	-21.589	-8.729
	4	-9.568(*)	1.690	.000	-15.300	-3.837
	5	-8.534(*)	1.642	.000	-14.102	-2.966
	6	-9.159(*)	1.468	.000	-14.136	-4.182
	7	-9.261(*)	1.362	.000	-13.879	-4.644
12	8	-5.364(*)	1.088	.000	-9.051	-1.676
	9	-4.375(*)	1.025	.002	-7.852	-.898
	10	-.386	.628	1.000	-2.514	1.742
	12	-1.955	.738	.429	-4.457	.548
	1	-10.852(*)	1.808	.000	-16.984	-4.721
	2	-12.795(*)	1.860	.000	-19.104	-6.487
	3	-13.205(*)	1.983	.000	-19.928	-6.481
	4	-7.614(*)	1.790	.002	-13.684	-1.543
	5	-6.580(*)	1.691	.008	-12.313	-.847

6	-7.205(*)	1.465	.000	-12.173	-2.236
7	-7.307(*)	1.305	.000	-11.733	-2.881
8	-3.409	1.104	.134	-7.152	.334
9	-2.420	1.073	.808	-6.058	1.217
10	1.568	.979	1.000	-1.752	4.889
11	1.955	.738	.429	-.548	4.457

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. TA Level \* year

#### Estimates

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	46.602	1.706	43.246	49.958
	2	47.523	1.795	43.993	51.052
	3	48.136	2.021	44.162	52.111
	4	47.216	1.846	43.585	50.847
	5	47.216	1.854	43.570	50.862
	6	45.989	1.672	42.700	49.277
	7	46.909	1.740	43.487	50.331
	8	46.909	1.708	43.549	50.269
	9	46.716	1.738	43.298	50.133
	10	46.102	1.586	42.982	49.222
	11	46.102	1.588	42.978	49.226
Medium	12	45.795	1.715	42.423	49.168
	1	49.381	1.207	47.008	51.754
	2	50.455	1.269	47.959	52.950

High	3	51.932	1.429	49.121	54.742
	4	51.313	1.306	48.745	53.880
	5	51.517	1.311	48.939	54.095
	6	49.165	1.182	46.840	51.490
	7	49.074	1.230	46.654	51.494
	8	47.511	1.208	45.135	49.887
	9	46.767	1.229	44.351	49.184
	10	46.869	1.122	44.663	49.076
	11	46.182	1.123	43.973	48.391
	12	46.585	1.212	44.201	48.970
	1	59.205	1.706	55.849	62.560
	2	61.148	1.795	57.618	64.677
	3	61.557	2.021	57.582	65.531
	4	55.966	1.846	52.335	59.597
	5	54.932	1.854	51.286	58.578
	6	55.557	1.672	52.268	58.845
	7	55.659	1.740	52.237	59.081
	8	51.761	1.708	48.401	55.121
	9	50.773	1.738	47.355	54.190
	10	46.784	1.586	43.664	49.904
	11	46.398	1.588	43.274	49.522
	12	48.352	1.715	44.980	51.725

#### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	8080.006	2	4040.003	15.769	.000	.083	.999
	Error	89414.892	349	256.203				
2	Contrast	9493.440	2	4746.720	16.749	.000	.088	1.000
	Error	98906.670	349	283.400				
3	Contrast	8672.418	2	4336.209	12.065	.000	.065	.995

4	Error	125429.26 1	349	359.396				
	Contrast	3375.571	2	1687.786	5.626	.004	.031	.858
5	Error	104693.60 8	349	299.982				
	Contrast	2636.835	2	1318.418	4.360	.013	.024	.753
6	Error	105526.43 8	349	302.368				
	Contrast	4255.730	2	2127.865	8.650	.000	.047	.968
7	Error	85852.926	349	245.997				
	Contrast	3798.639	2	1899.320	7.129	.001	.039	.930
8	Error	92983.085	349	266.427				
	Contrast	1328.690	2	664.345	2.587	.077	.015	.514
9	Error	89639.239	349	256.846				
	Contrast	1068.188	2	534.094	2.010	.136	.011	.414
10	Error	92724.801	349	265.687				
	Contrast	36.435	2	18.217	.082	.921	.000	.062
11	Error	77292.972	349	221.470				
	Contrast	4.250	2	2.125	.010	.990	.000	.051
12	Error	77483.341	349	222.015				
	Contrast	308.653	2	154.327	.597	.551	.003	.149
	Error	90291.119	349	258.714				

Each F tests the simple effects of TA Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	-2.778	2.090	.458	-7.792	2.235
		High	-12.602(*)	2.413	.000	-18.392	-6.813



2	Medium	Low	2.778	2.090	.458	-2.235	7.792	
		High	-9.824(*)	2.090	.000	-14.838	-4.810	
	High	Low	12.602(*)	2.413	.000	6.813	18.392	
		Medium	9.824(*)	2.090	.000	4.810	14.838	
	Low	Medium	-2.932	2.198	.455	-8.205	2.341	
		High	-13.625(*)	2.538	.000	-19.714	-7.536	
	Medium	Low	2.932	2.198	.455	-2.341	8.205	
		High	-10.693(*)	2.198	.000	-15.966	-5.420	
	High	Low	13.625(*)	2.538	.000	7.536	19.714	
		Medium	10.693(*)	2.198	.000	5.420	15.966	
	3	Low	Medium	-3.795	2.475	.333	-9.734	2.143
			High	-13.420(*)	2.858	.000	-20.277	-6.563
4	Medium	Low	3.795	2.475	.333	-2.143	9.734	
		High	-9.625(*)	2.475	.000	-15.563	-3.687	
	High	Low	13.420(*)	2.858	.000	6.563	20.277	
		Medium	9.625(*)	2.475	.000	3.687	15.563	
	Low	Medium	-4.097	2.261	.198	-9.522	1.329	
		High	-8.750(*)	2.611	.003	-15.015	-2.485	
	Medium	Low	4.097	2.261	.198	-1.329	9.522	
		High	-4.653	2.261	.116	-10.079	.772	
	High	Low	8.750(*)	2.611	.003	2.485	15.015	
		Medium	4.653	2.261	.116	-.772	10.079	
	5	Low	Medium	-4.301	2.270	.167	-9.748	1.146
			High	-7.716(*)	2.621	.010	-14.005	-1.426
5	Medium	Low	4.301	2.270	.167	-1.146	9.748	
		High	-3.415	2.270	.349	-8.862	2.032	
	High	Low	7.716(*)	2.621	.010	1.426	14.005	
		Medium	3.415	2.270	.349	-2.032	8.862	
	6	Low	Medium	-3.176	2.048	.323	-8.089	1.737
			High	-9.568(*)	2.364	.000	-15.241	-3.895
	Medium	Low	3.176	2.048	.323	-1.737	8.089	
		High	-6.392(*)	2.048	.006	-11.305	-1.479	
	High	Low	9.568(*)	2.364	.000	3.895	15.241	
		Medium	6.392(*)	2.048	.006	1.479	11.305	
	7	Low	Medium	-2.165	2.131	.672	-7.278	2.948

8	Medium	High	-8.750(*)	2.461	.001	-14.654	-2.846
		Low	2.165	2.131	.672	-2.948	7.278
	High	High	-6.585(*)	2.131	.006	-11.698	-1.472
		Low	8.750(*)	2.461	.001	2.846	14.654
	Low	Medium	6.585(*)	2.131	.006	1.472	11.698
		Medium	-.602	2.092	.988	-5.622	4.418
	Medium	High	-4.852	2.416	.130	-10.649	.944
		Low	.602	2.092	.988	-4.418	5.622
	High	High	-4.250	2.092	.124	-9.270	.770
		Low	4.852	2.416	.130	-.944	10.649
9	Low	Medium	4.250	2.092	.124	-.770	9.270
		Medium	-.051	2.128	1.000	-5.157	5.055
	Medium	High	-4.057	2.457	.270	-9.953	1.839
		Low	.051	2.128	1.000	-5.055	5.157
	High	High	-4.006	2.128	.171	-9.112	1.100
		Low	4.057	2.457	.270	-1.839	9.953
	Low	Medium	4.006	2.128	.171	-1.100	9.112
		Medium	-.767	1.943	.971	-5.429	3.895
	Medium	High	-.682	2.244	.986	-6.065	4.701
		Low	.767	1.943	.971	-3.895	5.429
10	High	High	.085	1.943	1.000	-4.576	4.747
		Low	.682	2.244	.986	-4.701	6.065
	Low	Medium	-.085	1.943	1.000	-4.747	4.576
		Medium	-.080	1.945	1.000	-4.747	4.588
	Medium	High	-.295	2.246	.999	-5.685	5.094
		Low	.080	1.945	1.000	-4.588	4.747
	High	High	-.216	1.945	.999	-4.883	4.451
		Low	.295	2.246	.999	-5.094	5.685
	Low	Medium	.216	1.945	.999	-4.451	4.883
		Medium	-.790	2.100	.975	-5.828	4.249
11	Medium	High	-2.557	2.425	.646	-8.375	3.261
		Low	.790	2.100	.975	-4.249	5.828
	High	High	-1.767	2.100	.785	-6.805	3.271
		Low	2.557	2.425	.646	-3.261	8.375
	Low	Medium	1.767	2.100	.785	-3.271	6.805
		Medium					
	Medium	High					
		Low					
	High	High					
		Low					

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
TA Level 1	Low	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	226.829	1	226.829	1.087	.300	.012	.178
	Quadratic	27.392	1	27.392	.175	.677	.002	.070
	Cubic	17.766	1	17.766	.347	.558	.004	.090

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
TA Level 2	Medium	176

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	5985.818	1	5985.818	18.296	.000	.095	.989
	Quadratic	499.803	1	499.803	4.350	.038	.024	.546

	Cubic	1613.761	1	1613.761	20.139	.000	.103	.994
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a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
TA Level 3	High	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	23509.218	1	23509.218	29.113	.000	.251	1.000
	Quadratic	57.527	1	57.527	.216	.643	.002	.075
	Cubic	589.507	1	589.507	2.894	.092	.032	.391

a. Computed using alpha = .05

### ***General Linear Model of Level of Total Assets for Diversity***

#### Between-Subjects Factors

	Value Label	N
TA Level 1	Low	88
2	Medium	176
3	High	88

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	51628.930	11	4693.539	57.142	.000	.141	1.000
	Greenhouse-Geisser	51628.930	4.311	11976.392	57.142	.000	.141	1.000
	Huynh-Feldt	51628.930	4.397	11743.125	57.142	.000	.141	1.000
	Lower-bound	51628.930	1	51628.930	57.142	.000	.141	1.000
year * TAlevel	Sphericity Assumed	7585.379	22	344.790	4.198	.000	.023	1.000
	Greenhouse-Geisser	7585.379	8.622	879.792	4.198	.000	.023	.997
	Huynh-Feldt	7585.379	8.793	862.656	4.198	.000	.023	.997
	Lower-bound	7585.379	2	3792.690	4.198	.016	.023	.736
Error(year)	Sphericity Assumed	315328.166	3839	82.138				
	Greenhouse-Geisser	315328.166	1504.501	209.590				
	Huynh-Feldt	315328.166	1534.387	205.508				
	Lower-bound	315328.166	349	903.519				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	49159.375	1	49159.375	142.459	.000	.290	1.000
	Quadratic	1916.735	1	1916.735	11.903	.001	.033	.931
	Cubic	126.099	1	126.099	1.741	.188	.005	.260
year * TAlevel	Linear	5620.033	2	2810.016	8.143	.000	.045	.958
	Quadratic	1469.839	2	734.919	4.564	.011	.025	.773
	Cubic	7.246	2	3.623	.050	.951	.000	.058
Error(year)	Linear	120432.005	349	345.077				
	Quadratic	56200.574	349	161.033				
	Cubic	25275.847	349	72.424				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
TAlevel	100793.911	2	50396.955	26.752	.000	.133	1.000
Error	657475.453	349	1883.884				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. TA Level

#### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	45.375	1.336	42.748	48.002
Medium	48.314	.944	46.456	50.171
High	58.270	1.336	55.643	60.897

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-2.939	1.636	.204	-6.864	.986
	High	-12.895(*)	1.889	.000	-17.427	-8.363
Medium	Low	2.939	1.636	.204	-.986	6.864

	High	-9.956(*)	1.636	.000	-13.881	-6.031
High	Low	12.895(*)	1.889	.000	8.363	17.427
	Medium	9.956(*)	1.636	.000	6.031	13.881

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	8399.493	2	4199.746	26.752	.000	.133	1.000
Error	54789.621	349	156.990				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	44.290	.510	43.286	45.293
2	45.123	.573	43.997	46.249
3	46.034	.645	44.765	47.303
4	48.801	.792	47.244	50.358
5	49.862	.803	48.282	51.442
6	50.913	.874	49.193	52.633
7	52.059	.902	50.285	53.833
8	52.848	.932	51.016	54.681
9	53.617	.985	51.680	55.555

10	54.443	1.015	52.448	56.439
11	55.061	1.036	53.023	57.098
12	54.784	1.001	52.815	56.753

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.833	.246	.051	-1.668	.001
	3	-1.744(*)	.390	.001	-3.067	-.421
	4	-4.511(*)	.594	.000	-6.524	-2.499
	5	-5.572(*)	.621	.000	-7.679	-3.465
	6	-6.623(*)	.746	.000	-9.153	-4.093
	7	-7.769(*)	.790	.000	-10.449	-5.089
	8	-8.559(*)	.817	.000	-11.330	-5.787
	9	-9.328(*)	.881	.000	-12.316	-6.339
	10	-10.153(*)	.889	.000	-13.168	-7.139
	11	-10.771(*)	.900	.000	-13.823	-7.719
	12	-10.494(*)	.876	.000	-13.465	-7.524
2	1	.833	.246	.051	-.001	1.668
	3	-.911	.310	.210	-1.964	.142
	4	-3.678(*)	.553	.000	-5.552	-1.804
	5	-4.739(*)	.589	.000	-6.734	-2.743
	6	-5.790(*)	.700	.000	-8.162	-3.417
	7	-6.936(*)	.739	.000	-9.440	-4.431
	8	-7.725(*)	.758	.000	-10.296	-5.155
	9	-8.494(*)	.835	.000	-11.327	-5.662
	10	-9.320(*)	.840	.000	-12.168	-6.472
	11	-9.938(*)	.851	.000	-12.821	-7.054
	12	-9.661(*)	.831	.000	-12.478	-6.844



3	1	1.744(*)	.390	.001	.421	3.067
	2	.911	.310	.210	-.142	1.964
	4	-2.767(*)	.503	.000	-4.473	-1.062
	5	-3.828(*)	.578	.000	-5.786	-1.869
	6	-4.879(*)	.704	.000	-7.267	-2.490
	7	-6.025(*)	.747	.000	-8.559	-3.491
	8	-6.814(*)	.741	.000	-9.327	-4.301
	9	-7.583(*)	.821	.000	-10.367	-4.799
	10	-8.409(*)	.839	.000	-11.254	-5.564
	11	-9.027(*)	.828	.000	-11.835	-6.218
	12	-8.750(*)	.815	.000	-11.515	-5.985
4	1	4.511(*)	.594	.000	2.499	6.524
	2	3.678(*)	.553	.000	1.804	5.552
	3	2.767(*)	.503	.000	1.062	4.473
	5	-1.061	.463	.777	-2.630	.509
	6	-2.112	.635	.063	-4.266	.043
	7	-3.258(*)	.734	.001	-5.747	-.768
	8	-4.047(*)	.724	.000	-6.504	-1.591
	9	-4.816(*)	.812	.000	-7.569	-2.063
	10	-5.642(*)	.861	.000	-8.563	-2.722
	11	-6.259(*)	.873	.000	-9.218	-3.301
	12	-5.983(*)	.852	.000	-8.871	-3.095
5	1	5.572(*)	.621	.000	3.465	7.679
	2	4.739(*)	.589	.000	2.743	6.734
	3	3.828(*)	.578	.000	1.869	5.786
	4	1.061	.463	.777	-.509	2.630
	6	-1.051	.509	.931	-2.778	.676
	7	-2.197(*)	.636	.040	-4.352	-.042
	8	-2.987(*)	.664	.001	-5.237	-.737
	9	-3.756(*)	.740	.000	-6.264	-1.247
	10	-4.581(*)	.826	.000	-7.383	-1.780
	11	-5.199(*)	.846	.000	-8.066	-2.332
	12	-4.922(*)	.818	.000	-7.697	-2.148

6	1	6.623(*)	.746	.000	4.093	9.153
	2	5.790(*)	.700	.000	3.417	8.162
	3	4.879(*)	.704	.000	2.490	7.267
	4	2.112	.635	.063	-.043	4.266
	5	1.051	.509	.931	-.676	2.778
	7	-1.146	.477	.674	-2.764	.472
	8	-1.936	.620	.121	-4.039	.168
	9	-2.705(*)	.760	.028	-5.282	-.127
	10	-3.530(*)	.864	.004	-6.460	-.601
	11	-4.148(*)	.899	.000	-7.197	-1.099
	12	-3.871(*)	.849	.000	-6.750	-.992
	7	7.769(*)	.790	.000	5.089	10.449
7	2	6.936(*)	.739	.000	4.431	9.440
	3	6.025(*)	.747	.000	3.491	8.559
	4	3.258(*)	.734	.001	.768	5.747
	5	2.197(*)	.636	.040	.042	4.352
	6	1.146	.477	.674	-.472	2.764
	8	-.790	.491	.999	-2.455	.875
	9	-1.559	.679	.774	-3.861	.744
	10	-2.384	.798	.180	-5.091	.322
	11	-3.002(*)	.846	.028	-5.869	-.135
	12	-2.725(*)	.794	.043	-5.418	-.033
	8	8.559(*)	.817	.000	5.787	11.330
	2	7.725(*)	.758	.000	5.155	10.296
8	3	6.814(*)	.741	.000	4.301	9.327
	4	4.047(*)	.724	.000	1.591	6.504
	5	2.987(*)	.664	.001	.737	5.237
	6	1.936	.620	.121	-.168	4.039
	7	.790	.491	.999	-.875	2.455
	9	-.769	.519	1.000	-2.527	.990
	10	-1.595	.683	.739	-3.911	.721
	11	-2.212	.734	.167	-4.701	.277
	12	-1.936	.715	.377	-4.361	.490

9	1	9.328(*)	.881	.000	6.339	12.316
	2	8.494(*)	.835	.000	5.662	11.327
	3	7.583(*)	.821	.000	4.799	10.367
	4	4.816(*)	.812	.000	2.063	7.569
	5	3.756(*)	.740	.000	1.247	6.264
	6	2.705(*)	.760	.028	.127	5.282
	7	1.559	.679	.774	-.744	3.861
	8	.769	.519	1.000	-.990	2.527
	10	-.826	.564	1.000	-2.739	1.088
	11	-1.443	.687	.913	-3.772	.886
	12	-1.167	.652	.994	-3.376	1.043
	10	10.153(*)	.889	.000	7.139	13.168
10	2	9.320(*)	.840	.000	6.472	12.168
	3	8.409(*)	.839	.000	5.564	11.254
	4	5.642(*)	.861	.000	2.722	8.563
	5	4.581(*)	.826	.000	1.780	7.383
	6	3.530(*)	.864	.004	.601	6.460
	7	2.384	.798	.180	-.322	5.091
	8	1.595	.683	.739	-.721	3.911
	9	.826	.564	1.000	-1.088	2.739
	11	-.617	.479	1.000	-2.242	1.007
	12	-.341	.580	1.000	-2.307	1.626
	11	10.771(*)	.900	.000	7.719	13.823
	2	9.938(*)	.851	.000	7.054	12.821
11	3	9.027(*)	.828	.000	6.218	11.835
	4	6.259(*)	.873	.000	3.301	9.218
	5	5.199(*)	.846	.000	2.332	8.066
	6	4.148(*)	.899	.000	1.099	7.197
	7	3.002(*)	.846	.028	.135	5.869
	8	2.212	.734	.167	-.277	4.701
	9	1.443	.687	.913	-.886	3.772
	10	.617	.479	1.000	-1.007	2.242
	12	.277	.422	1.000	-1.154	1.707

12	1	10.494(*)	.876	.000	7.524	13.465
	2	9.661(*)	.831	.000	6.844	12.478
	3	8.750(*)	.815	.000	5.985	11.515
	4	5.983(*)	.852	.000	3.095	8.871
	5	4.922(*)	.818	.000	2.148	7.697
	6	3.871(*)	.849	.000	.992	6.750
	7	2.725(*)	.794	.043	.033	5.418
	8	1.936	.715	.377	-.490	4.361
	9	1.167	.652	.994	-1.043	3.376
	10	.341	.580	1.000	-1.626	2.307
	11	-.277	.422	1.000	-1.707	1.154

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	41.69	.968	39.789	43.597
	2	41.89	1.087	39.749	44.023
	3	42.59	1.224	40.183	44.999
	4	43.88	1.502	40.921	46.829
	5	44.23	1.524	41.229	47.225
	6	45.92	1.659	42.657	49.184
	7	45.92	1.712	42.554	49.287
	8	46.84	1.768	43.364	50.318
	9	46.66	1.869	42.983	50.335
	10	48.39	1.925	44.600	52.173
	11	48.25	1.966	44.384	52.116
	12	48.25	1.899	44.514	51.986
Medium	1	43.39	.685	42.046	44.738

High	2	44.04	.768	42.529	45.551
	3	44.44	.866	42.741	46.146
	4	46.60	1.062	44.508	48.685
	5	47.47	1.078	45.352	49.591
	6	47.28	1.173	44.977	49.592
	7	49.14	1.210	46.762	51.522
	8	49.82	1.250	47.359	52.277
	9	51.23	1.322	48.628	53.827
	10	51.80	1.361	49.118	54.473
	11	52.25	1.390	49.516	54.984
	12	52.31	1.343	49.665	54.948
	1	47.78	.968	45.880	49.688
	2	49.44	1.087	47.306	51.580
	3	51.07	1.224	48.660	53.476
	4	55.93	1.502	52.978	58.885
	5	57.89	1.524	54.888	60.884
	6	59.53	1.659	56.271	62.797
	7	61.11	1.712	57.747	64.480
	8	61.89	1.768	58.409	65.364
	9	62.97	1.869	59.290	66.642
	10	63.15	1.925	59.361	66.934
	11	64.68	1.966	60.815	68.548
	12	63.80	1.899	60.060	67.531

### ***General Linear Model of Level of Total Assets for Employee Relations***

#### **Between-Subjects Factors**

		Value Label	N
TA Level	1	Low	88
	2	Medium	176

3	High	88
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### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	10603.867	11	963.988	8.869	.000	.025	1.000
	Greenhouse-Geisser	10603.867	3.894	2723.160	8.869	.000	.025	.999
	Huynh-Feldt	10603.867	3.966	2673.728	8.869	.000	.025	.999
	Lower-bound	10603.867	1	10603.867	8.869	.003	.025	.844
year * Tlevel	Sphericity Assumed	3877.461	22	176.248	1.622	.033	.009	.973
	Greenhouse-Geisser	3877.461	7.788	497.882	1.622	.116	.009	.714
	Huynh-Feldt	3877.461	7.932	488.844	1.622	.115	.009	.720
	Lower-bound	3877.461	2	1938.730	1.622	.199	.009	.342
Error(year)	Sphericity Assumed	417256.067	3839	108.689				
	Greenhouse-Geisser	417256.067	1358.991	307.034				
	Huynh-Feldt	417256.067	1384.116	301.460				
	Lower-bound	417256.067	349	1195.576				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6308.477	1	6308.477	12.554	.000	.035	.942
	Quadratic	3573.129	1	3573.129	18.126	.000	.049	.989
	Cubic	.212	1	.212	.002	.967	.000	.050
year * Tlevel	Linear	1602.780	2	801.390	1.595	.204	.009	.337
	Quadratic	462.974	2	231.487	1.174	.310	.007	.257
	Cubic	268.342	2	134.171	1.117	.328	.006	.246
Error(year)	Linear	175376.554	349	502.512				

Quadratic	68796.405	349	197.124				
Cubic	41909.671	349	120.085				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
TAlevel	6314.974	2	3157.487	1.517	.221	.009	.322
Error	726630.473	349	2082.036				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. TA Level

#### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	51.095	1.404	48.333	53.856
Medium	48.733	.993	46.781	50.686
High	51.258	1.404	48.496	54.019

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
Low	Medium	2.361	1.720	.429	-1.765	6.487
	High	-.163	1.986	1.000	-4.927	4.601
Medium	Low	-2.361	1.720	.429	-6.487	1.765
	High	-2.524	1.720	.371	-6.650	1.602
High	Low	.163	1.986	1.000	-4.601	4.927
	Medium	2.524	1.720	.371	-1.602	6.650

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	526.248	2	263.124	1.517	.221	.009	.322
Error	60552.539	349	173.503				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	46.167	.679	44.832	47.501
2	48.485	.772	46.966	50.004
3	49.136	.815	47.533	50.740
4	50.182	.871	48.469	51.895
5	50.864	.914	49.066	52.662



6	50.261	.893	48.506	52.017
7	51.419	.960	49.531	53.306
8	52.112	1.039	50.068	54.155
9	51.744	1.027	49.725	53.764
10	52.328	1.025	50.312	54.343
11	51.117	1.019	49.114	53.121
12	50.528	1.044	48.475	52.582

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.318(*)	.531	.001	-4.118	-.518
	3	-2.970(*)	.625	.000	-5.087	-.852
	4	-4.015(*)	.820	.000	-6.795	-1.235
	5	-4.697(*)	.823	.000	-7.489	-1.905
	6	-4.095(*)	.815	.000	-6.857	-1.332
	7	-5.252(*)	.869	.000	-8.199	-2.305
	8	-5.945(*)	.975	.000	-9.251	-2.639
	9	-5.578(*)	.965	.000	-8.850	-2.306
	10	-6.161(*)	1.029	.000	-9.650	-2.672
	11	-4.951(*)	1.040	.000	-8.477	-1.425
	12	-4.362(*)	1.065	.003	-7.973	-.751
	2	2.318(*)	.531	.001	.518	4.118
2	3	-.652	.489	1.000	-2.309	1.006
	4	-1.697	.747	.794	-4.228	.834
	5	-2.379	.781	.153	-5.028	.270
	6	-1.777	.803	.843	-4.500	.947
	7	-2.934(*)	.861	.047	-5.854	-.013
	8	-3.627(*)	.964	.013	-6.897	-.357

3	9	-3.259(*)	.960	.049	-6.514	-.005
	10	-3.843(*)	1.020	.013	-7.301	-.385
	11	-2.633	1.035	.531	-6.143	.878
	12	-2.044	1.063	.977	-5.647	1.559
	1	2.970(*)	.625	.000	.852	5.087
	2	.652	.489	1.000	-1.006	2.309
	4	-1.045	.607	.997	-3.104	1.013
	5	-1.727	.740	.738	-4.235	.781
	6	-1.125	.799	1.000	-3.835	1.585
	7	-2.282	.834	.351	-5.110	.545
	8	-2.975	.927	.091	-6.117	.166
	9	-2.608	.911	.256	-5.698	.482
4	10	-3.191	.951	.057	-6.417	.035
	11	-1.981	.969	.940	-5.266	1.304
	12	-1.392	.994	1.000	-4.763	1.978
	1	4.015(*)	.820	.000	1.235	6.795
	2	1.697	.747	.794	-.834	4.228
	3	1.045	.607	.997	-1.013	3.104
	5	-.682	.560	1.000	-2.580	1.216
	6	-.080	.782	1.000	-2.731	2.572
	7	-1.237	.821	1.000	-4.021	1.547
	8	-1.930	.920	.915	-5.049	1.189
	9	-1.563	.921	.998	-4.684	1.559
	10	-2.146	.987	.869	-5.491	1.200
5	11	-.936	1.000	1.000	-4.327	2.456
	12	-.347	1.026	1.000	-3.825	3.131
	1	4.697(*)	.823	.000	1.905	7.489
	2	2.379	.781	.153	-.270	5.028
	3	1.727	.740	.738	-.781	4.235
	4	.682	.560	1.000	-1.216	2.580
	6	.602	.647	1.000	-1.592	2.797
	7	-.555	.752	1.000	-3.104	1.994
	8	-1.248	.908	1.000	-4.327	1.831

6	9	-.881	.901	1.000	-3.937	2.176
	10	-1.464	1.007	1.000	-4.877	1.949
	11	-.254	1.037	1.000	-3.771	3.263
	12	.335	1.075	1.000	-3.309	3.980
	1	4.095(*)	.815	.000	1.332	6.857
	2	1.777	.803	.843	-.947	4.500
	3	1.125	.799	1.000	-1.585	3.835
	4	.080	.782	1.000	-2.572	2.731
	5	-.602	.647	1.000	-2.797	1.592
	7	-1.157	.461	.562	-2.719	.404
	8	-1.850	.670	.330	-4.122	.421
	9	-1.483	.720	.934	-3.926	.960
7	10	-2.066	.850	.646	-4.949	.817
	11	-.856	.907	1.000	-3.933	2.221
	12	-.267	.940	1.000	-3.455	2.920
	1	5.252(*)	.869	.000	2.305	8.199
	2	2.934(*)	.861	.047	.013	5.854
	3	2.282	.834	.351	-.545	5.110
	4	1.237	.821	1.000	-1.547	4.021
	5	.555	.752	1.000	-1.994	3.104
	6	1.157	.461	.562	-.404	2.719
	8	-.693	.526	1.000	-2.477	1.091
	9	-.326	.614	1.000	-2.407	1.756
	10	-.909	.782	1.000	-3.561	1.743
8	11	.301	.850	1.000	-2.582	3.184
	12	.890	.899	1.000	-2.158	3.938
	1	5.945(*)	.975	.000	2.639	9.251
	2	3.627(*)	.964	.013	.357	6.897
	3	2.975	.927	.091	-.166	6.117
	4	1.930	.920	.915	-1.189	5.049
	5	1.248	.908	1.000	-1.831	4.327
	6	1.850	.670	.330	-.421	4.122
	7	.693	.526	1.000	-1.091	2.477

9	9	.367	.423	1.000	-1.067	1.802
	10	-.216	.644	1.000	-2.401	1.969
	11	.994	.720	1.000	-1.448	3.437
	12	1.583	.778	.944	-1.056	4.222
	1	5.578(*)	.965	.000	2.306	8.850
	2	3.259(*)	.960	.049	.005	6.514
	3	2.608	.911	.256	-.482	5.698
	4	1.563	.921	.998	-1.559	4.684
	5	.881	.901	1.000	-2.176	3.937
	6	1.483	.720	.934	-.960	3.926
	7	.326	.614	1.000	-1.756	2.407
	8	-.367	.423	1.000	-1.802	1.067
10	10	-.583	.543	1.000	-2.423	1.257
	11	.627	.648	1.000	-1.569	2.823
	12	1.216	.713	.998	-1.203	3.635
	1	6.161(*)	1.029	.000	2.672	9.650
	2	3.843(*)	1.020	.013	.385	7.301
	3	3.191	.951	.057	-.035	6.417
	4	2.146	.987	.869	-1.200	5.491
	5	1.464	1.007	1.000	-1.949	4.877
	6	2.066	.850	.646	-.817	4.949
	7	.909	.782	1.000	-1.743	3.561
	8	.216	.644	1.000	-1.969	2.401
	9	.583	.543	1.000	-1.257	2.423
11	11	1.210	.389	.125	-.109	2.530
	12	1.799(*)	.497	.022	.115	3.484
	1	4.951(*)	1.040	.000	1.425	8.477
	2	2.633	1.035	.531	-.878	6.143
	3	1.981	.969	.940	-1.304	5.266
	4	.936	1.000	1.000	-2.456	4.327
	5	.254	1.037	1.000	-3.263	3.771
	6	.856	.907	1.000	-2.221	3.933
	7	-.301	.850	1.000	-3.184	2.582

12	8	-.994	.720	1.000	-3.437	1.448
	9	-.627	.648	1.000	-2.823	1.569
	10	-1.210	.389	.125	-2.530	.109
	12	.589	.321	.990	-.499	1.677
	1	4.362(*)	1.065	.003	.751	7.973
	2	2.044	1.063	.977	-1.559	5.647
	3	1.392	.994	1.000	-1.978	4.763
	4	.347	1.026	1.000	-3.131	3.825
	5	-.335	1.075	1.000	-3.980	3.309
	6	.267	.940	1.000	-2.920	3.455
	7	-.890	.899	1.000	-3.938	2.158
	8	-1.583	.778	.944	-4.222	1.056
	9	-1.216	.713	.998	-3.635	1.203
	10	-1.799(*)	.497	.022	-3.484	-.115
	11	-.589	.321	.990	-1.677	.499

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	48.18	1.288	45.649	50.714
	2	51.36	1.465	48.481	54.246
	3	51.36	1.547	48.322	54.406
	4	51.73	1.653	48.477	54.978
	5	51.91	1.735	48.498	55.321
	6	50.36	1.694	47.033	53.695
	7	50.38	1.821	46.793	53.957
	8	51.85	1.971	47.975	55.729
	9	51.76	1.948	47.930	55.593
	10	52.38	1.945	48.550	56.200

Medium	11	51.20	1.933	47.403	55.006
	12	50.66	1.981	46.763	54.555
	1	44.32	.911	42.527	46.109
	2	45.73	1.036	43.689	47.765
	3	46.77	1.094	44.622	48.924
	4	49.18	1.169	46.883	51.480
	5	51.05	1.227	48.633	53.458
	6	49.14	1.198	46.781	51.492
	7	49.41	1.288	46.882	51.947
	8	50.37	1.394	47.628	53.111
	9	50.37	1.378	47.660	53.079
	10	50.41	1.375	47.710	53.119
High	11	49.50	1.367	46.812	52.188
	12	48.55	1.401	45.796	51.306
	1	46.00	1.288	43.467	48.533
	2	48.36	1.465	45.481	51.246
	3	49.27	1.547	46.231	52.315
	4	49.64	1.653	46.386	52.887
	5	49.64	1.735	46.225	53.048
	6	51.28	1.694	47.953	54.615
	7	54.47	1.821	50.884	58.048
	8	54.11	1.971	50.237	57.991
	9	53.10	1.948	49.271	56.934
	10	54.19	1.945	50.369	58.018
	11	52.65	1.933	48.846	56.449
	12	52.38	1.981	48.479	56.271

### ***General Linear Model of Level of Total Assets for Environment***

**Between-Subjects Factors**

		Value Label	N
TA Level	1	Low	88
	2	Medium	176
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2334.400	11	212.218	2.532	.003	.007	.970
	Greenhouse-Geisser	2334.400	4.982	468.541	2.532	.027	.007	.791
	Huynh-Feldt	2334.400	5.092	458.438	2.532	.026	.007	.798
	Lower-bound	2334.400	1	2334.400	2.532	.112	.007	.355
year * TAllevel	Sphericity Assumed	1888.103	22	85.823	1.024	.429	.006	.816
	Greenhouse-Geisser	1888.103	9.965	189.482	1.024	.420	.006	.551
	Huynh-Feldt	1888.103	10.184	185.396	1.024	.421	.006	.558
	Lower-bound	1888.103	2	944.052	1.024	.360	.006	.228
Error(year)	Sphericity Assumed	321764.797	3839	83.815				
	Greenhouse-Geisser	321764.797	1738.816	185.048				
	Huynh-Feldt	321764.797	1777.133	181.058				
	Lower-bound	321764.797	349	921.962				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	99.809	1	99.809	.337	.562	.001	.089
	Quadratic	35.136	1	35.136	.211	.646	.001	.074
	Cubic	601.386	1	601.386	5.078	.025	.014	.613
year * TAllevel	Linear	760.669	2	380.334	1.285	.278	.007	.278

Error(year)	Quadratic	89.957	2	44.978	.270	.763	.002	.093
	Cubic	63.869	2	31.934	.270	.764	.002	.092
	Linear	103284.516	349	295.944				
	Quadratic	58042.820	349	166.312				
	Cubic	41330.447	349	118.425				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
TAlevel	73372.539	2	36686.269	16.052	.000	.084	1.000
Error	797641.703	349	2285.506				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. TA Level

#### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	56.366	1.471	53.473	59.260
Medium	49.706	1.040	47.660	51.752
High	44.632	1.471	41.738	47.525

#### Pairwise Comparisons



Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	6.660(*)	1.802	.001	2.337	10.983
	High	11.735(*)	2.081	.000	6.743	16.727
Medium	Low	-6.660(*)	1.802	.001	-10.983	-2.337
	High	5.075(*)	1.802	.015	.752	9.398
High	Low	-11.735(*)	2.081	.000	-16.727	-6.743
	Medium	-5.075(*)	1.802	.015	-9.398	-.752

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	6114.378	2	3057.189	16.052	.000	.084	1.000
Error	66470.142	349	190.459				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	50.924	.783	49.384	52.465

2	49.644	.843	47.985	51.303
3	49.339	.903	47.562	51.116
4	49.006	.936	47.164	50.848
5	49.585	.902	47.812	51.359
6	50.977	.935	49.137	52.817
7	51.451	.995	49.494	53.408
8	51.091	.991	49.141	53.041
9	50.508	.957	48.626	52.389
10	50.324	.928	48.498	52.150
11	49.337	.953	47.462	51.212
12	50.633	.872	48.918	52.347

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	1.280	.560	.781	-.617	3.178
	3	1.585	.673	.721	-.698	3.869
	4	1.919	.737	.472	-.581	4.418
	5	1.339	.761	.996	-1.241	3.919
	6	-.053	.767	1.000	-2.655	2.549
	7	-.527	.795	1.000	-3.224	2.170
	8	-.167	.824	1.000	-2.959	2.626
	9	.417	.861	1.000	-2.503	3.336
	10	.600	.795	1.000	-2.094	3.295
	11	1.587	.878	.993	-1.390	4.565
	12	.292	.860	1.000	-2.625	3.208
2	1	-1.280	.560	.781	-3.178	.617
	3	.305	.472	1.000	-1.296	1.906
	4	.638	.628	1.000	-1.491	2.767

3	5	.059	.695	1.000	-2.299	2.417
	6	-1.333	.783	.998	-3.987	1.320
	7	-1.807	.811	.830	-4.555	.942
	8	-1.447	.841	.997	-4.300	1.406
	9	-.864	.854	1.000	-3.759	2.032
	10	-.680	.789	1.000	-3.356	1.997
	11	.307	.845	1.000	-2.558	3.172
	12	-.989	.857	1.000	-3.894	1.917
	1	-1.585	.673	.721	-3.869	.698
	2	-.305	.472	1.000	-1.906	1.296
	4	.333	.589	1.000	-1.663	2.329
	5	-.246	.702	1.000	-2.627	2.135
4	6	-1.638	.780	.914	-4.283	1.007
	7	-2.112	.819	.497	-4.890	.666
	8	-1.752	.833	.912	-4.577	1.074
	9	-1.169	.849	1.000	-4.047	1.710
	10	-.985	.804	1.000	-3.711	1.741
	11	.002	.906	1.000	-3.071	3.075
	12	-1.294	.910	1.000	-4.380	1.792
	1	-1.919	.737	.472	-4.418	.581
	2	-.638	.628	1.000	-2.767	1.491
	3	-.333	.589	1.000	-2.329	1.663
	5	-.580	.522	1.000	-2.350	1.191
	6	-1.972	.733	.392	-4.458	.515
5	7	-2.445	.809	.162	-5.187	.297
	8	-2.085	.836	.580	-4.919	.748
	9	-1.502	.843	.994	-4.361	1.357
	10	-1.318	.825	1.000	-4.116	1.480
	11	-.331	.911	1.000	-3.421	2.758
	12	-1.627	.912	.994	-4.719	1.465
	1	-1.339	.761	.996	-3.919	1.241
	2	-.059	.695	1.000	-2.417	2.299
	3	.246	.702	1.000	-2.135	2.627

6	4	.580	.522	1.000	-1.191	2.350
	6	-1.392	.599	.748	-3.423	.638
	7	-1.866	.677	.336	-4.161	.430
	8	-1.506	.733	.935	-3.990	.978
	9	-.922	.726	1.000	-3.383	1.538
	10	-.739	.724	1.000	-3.194	1.717
	11	.248	.776	1.000	-2.383	2.879
	12	-1.047	.797	1.000	-3.751	1.656
	1	.053	.767	1.000	-2.549	2.655
	2	1.333	.783	.998	-1.320	3.987
	3	1.638	.780	.914	-1.007	4.283
	4	1.972	.733	.392	-.515	4.458
7	5	1.392	.599	.748	-.638	3.423
	7	-.473	.384	1.000	-1.776	.829
	8	-.114	.522	1.000	-1.885	1.658
	9	.470	.573	1.000	-1.475	2.414
	10	.653	.613	1.000	-1.424	2.731
	11	1.640	.770	.897	-.971	4.251
	12	.345	.784	1.000	-2.314	3.003
	1	.527	.795	1.000	-2.170	3.224
	2	1.807	.811	.830	-.942	4.555
	3	2.112	.819	.497	-.666	4.890
	4	2.445	.809	.162	-.297	5.187
	5	1.866	.677	.336	-.430	4.161
8	6	.473	.384	1.000	-.829	1.776
	8	.360	.407	1.000	-1.019	1.739
	9	.943	.499	.982	-.748	2.634
	10	1.127	.555	.946	-.756	3.010
	11	2.114	.741	.263	-.400	4.627
	12	.818	.760	1.000	-1.758	3.394
	1	.167	.824	1.000	-2.626	2.959
	2	1.447	.841	.997	-1.406	4.300
	3	1.752	.833	.912	-1.074	4.577

9	4	2.085	.836	.580	-.748	4.919
	5	1.506	.733	.935	-.978	3.990
	6	.114	.522	1.000	-1.658	1.885
	7	-.360	.407	1.000	-1.739	1.019
	9	.583	.371	1.000	-.675	1.841
	10	.767	.474	.999	-.838	2.373
	11	1.754	.716	.626	-.674	4.181
	12	.458	.769	1.000	-2.150	3.067
	1	-.417	.861	1.000	-3.336	2.503
	2	.864	.854	1.000	-2.032	3.759
	3	1.169	.849	1.000	-1.710	4.047
	4	1.502	.843	.994	-1.357	4.361
10	5	.922	.726	1.000	-1.538	3.383
	6	-.470	.573	1.000	-2.414	1.475
	7	-.943	.499	.982	-2.634	.748
	8	-.583	.371	1.000	-1.841	.675
	10	.184	.440	1.000	-1.309	1.676
	11	1.170	.652	.993	-1.039	3.380
	12	-.125	.701	1.000	-2.502	2.252
	1	-.600	.795	1.000	-3.295	2.094
	2	.680	.789	1.000	-1.997	3.356
	3	.985	.804	1.000	-1.741	3.711
	4	1.318	.825	1.000	-1.480	4.116
	5	.739	.724	1.000	-1.717	3.194
11	6	-.653	.613	1.000	-2.731	1.424
	7	-1.127	.555	.946	-3.010	.756
	8	-.767	.474	.999	-2.373	.838
	9	-.184	.440	1.000	-1.676	1.309
	11	.987	.524	.984	-.790	2.764
	12	-.309	.623	1.000	-2.420	1.803
	1	-1.587	.878	.993	-4.565	1.390
	2	-.307	.845	1.000	-3.172	2.558
	3	-.002	.906	1.000	-3.075	3.071

12	4	.331	.911	1.000	-2.758	3.421
	5	-.248	.776	1.000	-2.879	2.383
	6	-1.640	.770	.897	-4.251	.971
	7	-2.114	.741	.263	-4.627	.400
	8	-1.754	.716	.626	-4.181	.674
	9	-1.170	.652	.993	-3.380	1.039
	10	-.987	.524	.984	-2.764	.790
	12	-1.295	.512	.545	-3.032	.441
	1	-.292	.860	1.000	-3.208	2.625
	2	.989	.857	1.000	-1.917	3.894
	3	1.294	.910	1.000	-1.792	4.380
	4	1.627	.912	.994	-1.465	4.719
	5	1.047	.797	1.000	-1.656	3.751
	6	-.345	.784	1.000	-3.003	2.314
	7	-.818	.760	1.000	-3.394	1.758
	8	-.458	.769	1.000	-3.067	2.150
	9	.125	.701	1.000	-2.252	2.502
	10	.309	.623	1.000	-1.803	2.420
	11	1.295	.512	.545	-.441	3.032

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	55.11	1.486	52.190	58.037
	2	55.68	1.600	52.535	58.829
	3	55.97	1.714	52.594	59.337
	4	55.00	1.777	51.505	58.495
	5	55.48	1.711	52.112	58.842
	6	56.16	1.775	52.668	59.650

Medium	7	57.30	1.888	53.582	61.009
	8	57.39	1.881	53.687	61.086
	9	57.10	1.815	53.533	60.672
	10	57.10	1.761	53.638	60.566
	11	56.82	1.809	53.260	60.376
	12	57.30	1.654	54.043	60.548
	1	50.60	1.051	48.535	52.669
	2	49.45	1.131	47.229	51.680
	3	48.35	1.212	45.963	50.731
	4	48.32	1.256	45.853	50.795
	5	49.14	1.210	46.763	51.521
	6	49.95	1.255	47.486	52.423
High	7	50.43	1.335	47.806	53.058
	8	50.49	1.330	47.873	53.104
	9	50.06	1.283	47.533	52.581
	10	50.65	1.245	48.204	53.103
	11	48.58	1.279	46.064	51.095
	12	50.44	1.169	48.143	52.743
	1	47.06	1.486	44.133	49.980
	2	43.80	1.600	40.648	46.943
	3	43.70	1.714	40.333	47.076
	4	43.69	1.777	40.198	47.188
	5	44.14	1.711	40.772	47.501
	6	46.82	1.775	43.327	50.309
	7	46.63	1.888	42.912	50.338
	8	45.40	1.881	41.698	49.097
	9	44.36	1.815	40.794	47.933
	10	43.22	1.761	39.752	46.680
	11	42.61	1.809	39.056	46.171
	12	44.16	1.654	40.907	47.412

## General Linear Model of Level of Total Assets for Product

### Between-Subjects Factors

		Value Label	N
TA Level	1	Low	88
	2	Medium	176
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	13914.927	11	1264.993	14.945	.000	.041	1.000
	Greenhouse-Geisser	13914.927	3.560	3908.510	14.945	.000	.041	1.000
	Huynh-Feldt	13914.927	3.622	3841.799	14.945	.000	.041	1.000
	Lower-bound	13914.927	1	13914.927	14.945	.000	.041	.971
year * TAlevel	Sphericity Assumed	7522.491	22	341.931	4.040	.000	.023	1.000
	Greenhouse-Geisser	7522.491	7.120	1056.482	4.040	.000	.023	.988
	Huynh-Feldt	7522.491	7.244	1038.450	4.040	.000	.023	.989
	Lower-bound	7522.491	2	3761.245	4.040	.018	.023	.718
Error(year)	Sphericity Assumed	324947.660	3839	84.644				
	Greenhouse-Geisser	324947.660	1242.496	261.528				
	Huynh-Feldt	324947.660	1264.072	257.064				
	Lower-bound	324947.660	349	931.082				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1



Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	12534.652	1	12534.652	29.550	.000	.078	1.000
	Quadratic	936.173	1	936.173	6.093	.014	.017	.692
	Cubic	18.944	1	18.944	.196	.658	.001	.073
year * Tlevel	Linear	4690.159	2	2345.080	5.528	.004	.031	.851
	Quadratic	2003.396	2	1001.698	6.520	.002	.036	.906
	Cubic	159.884	2	79.942	.828	.438	.005	.192
Error(year)	Linear	148042.661	349	424.191				
	Quadratic	53620.511	349	153.640				
	Cubic	33702.803	349	96.570				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Tlevel	31845.853	2	15922.926	6.985	.001	.038	.925
Error	795549.670	349	2279.512				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. TA Level

#### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
Low	54.275	1.469	51.385	57.164
Medium	49.417	1.039	47.373	51.460
High	46.651	1.469	43.761	49.540

### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	4.858(*)	1.799	.022	.541	9.175
	High	7.624(*)	2.078	.001	2.639	12.609
Medium	Low	-4.858(*)	1.799	.022	-9.175	-.541
	High	2.766	1.799	.330	-1.551	7.083
High	Low	-7.624(*)	2.078	.001	-12.609	-2.639
	Medium	-2.766	1.799	.330	-7.083	1.551

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2653.821	2	1326.911	6.985	.001	.038	.925
Error	66295.806	349	189.959				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	51.981	.809	50.389	53.573
2	52.117	.860	50.426	53.808
3	52.502	.848	50.835	54.169
4	51.593	.893	49.836	53.350
5	51.299	.858	49.611	52.987
6	50.498	.878	48.771	52.225
7	50.087	.929	48.259	51.915
8	49.799	.949	47.933	51.666
9	49.129	.958	47.245	51.012
10	49.049	.979	47.124	50.974
11	47.314	1.016	45.317	49.312
12	45.998	1.022	43.987	48.009

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-.136	.537	1.000	-1.957	1.684
	3	-.521	.609	1.000	-2.586	1.544
	4	.388	.724	1.000	-2.067	2.843
	5	.682	.778	1.000	-1.957	3.321
	6	1.483	.823	.993	-1.309	4.275
	7	1.894	.896	.906	-1.144	4.932
	8	2.182	.872	.572	-.774	5.138

2	9	2.852	.897	.100	-.188	5.892
	10	2.932	.886	.066	-.072	5.936
	11	4.667(*)	.977	.000	1.353	7.980
	12	5.983(*)	.993	.000	2.617	9.349
	1	.136	.537	1.000	-1.684	1.957
	3	-.384	.406	1.000	-1.761	.992
	4	.525	.633	1.000	-1.621	2.670
	5	.818	.727	1.000	-1.648	3.284
	6	1.619	.778	.923	-1.018	4.256
	7	2.030	.859	.712	-.883	4.944
	8	2.318	.853	.366	-.572	5.209
	9	2.989	.884	.052	-.008	5.985
3	10	3.068(*)	.892	.042	.045	6.091
	11	4.803(*)	.983	.000	1.469	8.137
	12	6.119(*)	1.013	.000	2.684	9.555
	1	.521	.609	1.000	-1.544	2.586
	2	.384	.406	1.000	-.992	1.761
	4	.909	.527	.997	-.879	2.697
	5	1.203	.645	.987	-.986	3.391
	6	2.004	.748	.401	-.532	4.540
	7	2.415	.837	.240	-.422	5.252
	8	2.703	.823	.072	-.089	5.494
	9	3.373(*)	.867	.008	.433	6.313
	10	3.453(*)	.894	.009	.421	6.484
4	11	5.188(*)	.966	.000	1.911	8.464
	12	6.504(*)	.984	.000	3.169	9.839
	1	-.388	.724	1.000	-2.843	2.067
	2	-.525	.633	1.000	-2.670	1.621
	3	-.909	.527	.997	-2.697	.879
	5	.294	.490	1.000	-1.368	1.955
	6	1.095	.649	.998	-1.105	3.295
	7	1.506	.741	.945	-1.007	4.018
	8	1.794	.768	.739	-.812	4.399

5	9	2.464	.822	.176	-.325	5.253
	10	2.544	.847	.173	-.330	5.417
	11	4.278(*)	.925	.000	1.141	7.415
	12	5.595(*)	.937	.000	2.419	8.770
	1	-.682	.778	1.000	-3.321	1.957
	2	-.818	.727	1.000	-3.284	1.648
	3	-1.203	.645	.987	-3.391	.986
	4	-.294	.490	1.000	-1.955	1.368
	6	.801	.469	.998	-.788	2.390
	7	1.212	.600	.950	-.824	3.248
	8	1.500	.648	.758	-.699	3.699
	9	2.170	.719	.164	-.267	4.608
6	10	2.250	.748	.170	-.287	4.787
	11	3.985(*)	.813	.000	1.230	6.740
	12	5.301(*)	.831	.000	2.483	8.119
	1	-1.483	.823	.993	-4.275	1.309
	2	-1.619	.778	.923	-4.256	1.018
	3	-2.004	.748	.401	-4.540	.532
	4	-1.095	.649	.998	-3.295	1.105
	5	-.801	.469	.998	-2.390	.788
	7	.411	.398	1.000	-.939	1.761
	8	.699	.499	1.000	-.993	2.391
	9	1.369	.588	.742	-.623	3.361
	10	1.449	.622	.743	-.660	3.558
7	11	3.184(*)	.726	.001	.721	5.646
	12	4.500(*)	.740	.000	1.992	7.008
	1	-1.894	.896	.906	-4.932	1.144
	2	-2.030	.859	.712	-4.944	.883
	3	-2.415	.837	.240	-5.252	.422
	4	-1.506	.741	.945	-4.018	1.007
	5	-1.212	.600	.950	-3.248	.824
	6	-.411	.398	1.000	-1.761	.939
	8	.288	.339	1.000	-.862	1.438

8	9	.958	.498	.976	-.730	2.646
	10	1.038	.592	.996	-.970	3.046
	11	2.773(*)	.701	.006	.397	5.149
	12	4.089(*)	.725	.000	1.632	6.546
	1	-2.182	.872	.572	-5.138	.774
	2	-2.318	.853	.366	-5.209	.572
	3	-2.703	.823	.072	-5.494	.089
	4	-1.794	.768	.739	-4.399	.812
	5	-1.500	.648	.758	-3.699	.699
	6	-.699	.499	1.000	-2.391	.993
	7	-.288	.339	1.000	-1.438	.862
	9	.670	.375	.994	-.601	1.942
9	10	.750	.510	1.000	-.980	2.480
	11	2.485(*)	.645	.009	.298	4.672
	12	3.801(*)	.686	.000	1.475	6.127
	1	-2.852	.897	.100	-5.892	.188
	2	-2.989	.884	.052	-5.985	.008
	3	-3.373(*)	.867	.008	-6.313	-.433
	4	-2.464	.822	.176	-5.253	.325
	5	-2.170	.719	.164	-4.608	.267
	6	-1.369	.588	.742	-3.361	.623
	7	-.958	.498	.976	-2.646	.730
	8	-.670	.375	.994	-1.942	.601
	10	.080	.363	1.000	-1.150	1.310
10	11	1.814(*)	.522	.037	.044	3.585
	12	3.131(*)	.595	.000	1.112	5.149
	1	-2.932	.886	.066	-5.936	.072
	2	-3.068(*)	.892	.042	-6.091	-.045
	3	-3.453(*)	.894	.009	-6.484	-.421
	4	-2.544	.847	.173	-5.417	.330
	5	-2.250	.748	.170	-4.787	.287
	6	-1.449	.622	.743	-3.558	.660
	7	-1.038	.592	.996	-3.046	.970

11	8	-.750	.510	1.000	-2.480	.980
	9	-.080	.363	1.000	-1.310	1.150
	11	1.735(*)	.414	.002	.330	3.140
	12	3.051(*)	.511	.000	1.319	4.783
	1	-4.667(*)	.977	.000	-7.980	-1.353
	2	-4.803(*)	.983	.000	-8.137	-1.469
	3	-5.188(*)	.966	.000	-8.464	-1.911
	4	-4.278(*)	.925	.000	-7.415	-1.141
	5	-3.985(*)	.813	.000	-6.740	-1.230
	6	-3.184(*)	.726	.001	-5.646	-.721
	7	-2.773(*)	.701	.006	-5.149	-.397
12	8	-2.485(*)	.645	.009	-4.672	-.298
	9	-1.814(*)	.522	.037	-3.585	-.044
	10	-1.735(*)	.414	.002	-3.140	-.330
	12	1.316(*)	.336	.007	.178	2.454
	1	-5.983(*)	.993	.000	-9.349	-2.617
	2	-6.119(*)	1.013	.000	-9.555	-2.684
	3	-6.504(*)	.984	.000	-9.839	-3.169
	4	-5.595(*)	.937	.000	-8.770	-2.419
	5	-5.301(*)	.831	.000	-8.119	-2.483
	6	-4.500(*)	.740	.000	-7.008	-1.992
	7	-4.089(*)	.725	.000	-6.546	-1.632
	8	-3.801(*)	.686	.000	-6.127	-1.475
	9	-3.131(*)	.595	.000	-5.149	-1.112
	10	-3.051(*)	.511	.000	-4.783	-1.319
	11	-1.316(*)	.336	.007	-2.454	-.178

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval
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				Lower Bound	Upper Bound
Low	1	53.65	1.535	50.628	56.668
	2	54.85	1.631	51.644	58.061
	3	55.40	1.608	52.234	58.561
	4	54.53	1.695	51.201	57.867
	5	54.97	1.629	51.763	58.169
	6	53.88	1.666	50.599	57.151
	7	53.77	1.763	50.305	57.240
	8	54.20	1.801	50.663	57.746
	9	53.66	1.817	50.085	57.233
	10	54.64	1.857	50.984	58.289
	11	54.31	1.927	50.517	58.096
	12	53.44	1.940	49.628	57.258
Medium	1	52.63	1.086	50.490	54.760
	2	53.02	1.154	50.754	55.292
	3	51.98	1.137	49.746	54.220
	4	50.12	1.198	47.762	52.476
	5	49.36	1.152	47.099	51.629
	6	49.04	1.178	46.723	51.357
	7	48.99	1.247	46.537	51.441
	8	48.56	1.273	46.052	51.061
	9	48.94	1.285	46.416	51.470
	10	47.95	1.313	45.372	50.538
	11	46.44	1.362	43.764	49.123
	12	45.96	1.372	43.263	48.658
High	1	49.67	1.535	46.651	52.690
	2	48.48	1.631	45.269	51.686
	3	50.13	1.608	46.961	53.289
	4	50.13	1.695	46.792	53.458
	5	49.57	1.629	46.365	52.771
	6	48.58	1.666	45.303	51.856
	7	47.50	1.763	44.032	50.968



8	46.64	1.801	43.095	50.178
9	44.78	1.817	41.210	48.358
10	44.56	1.857	40.904	48.210
11	41.19	1.927	37.404	44.983
12	38.59	1.940	34.776	42.406

### ***General Linear Model of Level of Total Assets for Corporate Governance***

#### **Between-Subjects Factors**

		Value Label	N
TA Level	1	Low	88
	2	Medium	176
	3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	46176.993	11	4197.908	32.311	.000	.085	1.000
	Greenhouse-Geisser	46176.993	5.675	8137.193	32.311	.000	.085	1.000
	Huynh-Feldt	46176.993	5.812	7944.612	32.311	.000	.085	1.000
	Lower-bound	46176.993	1.000	46176.993	32.311	.000	.085	1.000
year * TAllevel	Sphericity Assumed	17711.192	22	805.054	6.196	.000	.034	1.000
	Greenhouse-Geisser	17711.192	11.350	1560.511	6.196	.000	.034	1.000
	Huynh-Feldt	17711.192	11.625	1523.579	6.196	.000	.034	1.000
	Lower-bound	17711.192	2.000	8855.596	6.196	.002	.034	.891
Error(year)	Sphericity Assumed	498775.093	3839	129.923				

Greenhouse-Geisser	498775.093	1980.507	251.842				
Huynh-Feldt	498775.093	2028.516	245.882				
Lower-bound	498775.093	349.000	1429.155				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	42621.094	1	42621.094	93.969	.000	.212	1.000
	Quadratic	705.958	1	705.958	3.385	.067	.010	.450
	Cubic	373.691	1	373.691	2.454	.118	.007	.346
year * Tlevel	Linear	11194.095	2	5597.048	12.340	.000	.066	.996
	Quadratic	5229.662	2	2614.831	12.540	.000	.067	.996
	Cubic	249.895	2	124.947	.820	.441	.005	.190
Error(year)	Linear	158294.001	349	453.564				
	Quadratic	72775.873	349	208.527				
	Cubic	53155.276	349	152.307				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Tlevel	113617.652	2	56808.826	40.567	.000	.189	1.000
Error	488733.196	349	1400.382				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	56.360	.346	55.680	57.040
2	55.695	.652	54.413	56.977
3	53.799	.719	52.385	55.214
4	51.780	.854	50.101	53.459
5	49.318	.875	47.597	51.039
6	51.116	.898	49.349	52.882
7	50.426	.927	48.603	52.249
8	47.595	.991	45.645	49.544
9	48.653	.969	46.747	50.560
10	47.078	.973	45.164	48.992
11	45.970	.956	44.090	47.849
12	45.330	.963	43.435	47.224

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.665	.601	1.000	-1.375	2.704

2	3	2.561(*)	.711	.024	.150	4.971
	4	4.580(*)	.876	.000	1.611	7.548
	5	7.042(*)	.905	.000	3.972	10.112
	6	5.244(*)	.934	.000	2.077	8.411
	7	5.934(*)	.976	.000	2.624	9.243
	8	8.765(*)	1.034	.000	5.260	12.270
	9	7.706(*)	1.011	.000	4.279	11.134
	10	9.282(*)	1.035	.000	5.773	12.792
	11	10.390(*)	1.021	.000	6.928	13.852
	12	11.030(*)	1.023	.000	7.560	14.501
	1	-.665	.601	1.000	-2.704	1.375
	3	1.896	.585	.082	-.086	3.878
3	4	3.915(*)	.783	.000	1.260	6.570
	5	6.377(*)	.840	.000	3.530	9.224
	6	4.580(*)	.874	.000	1.618	7.541
	7	5.269(*)	.950	.000	2.049	8.489
	8	8.100(*)	.990	.000	4.744	11.456
	9	7.042(*)	1.025	.000	3.565	10.518
	10	8.617(*)	1.070	.000	4.989	12.246
	11	9.725(*)	1.048	.000	6.173	13.277
	12	10.366(*)	1.056	.000	6.783	13.948
	1	-2.561(*)	.711	.024	-4.971	-.150
	2	-1.896	.585	.082	-3.878	.086
	4	2.019	.739	.355	-.487	4.525
4	5	4.481(*)	.799	.000	1.772	7.191
	6	2.684	.886	.160	-.320	5.687
	7	3.373(*)	.992	.049	.008	6.738
	8	6.205(*)	1.008	.000	2.787	9.622
	9	5.146(*)	1.054	.000	1.571	8.721
	10	6.722(*)	1.104	.000	2.977	10.466
	11	7.830(*)	1.071	.000	4.197	11.462
	12	8.470(*)	1.087	.000	4.785	12.155
4	1	-4.580(*)	.876	.000	-7.548	-1.611

5	2	-3.915(*)	.783	.000	-6.570	-1.260
	3	-2.019	.739	.355	-4.525	.487
	5	2.462(*)	.623	.006	.350	4.574
	6	.665	.852	1.000	-2.225	3.555
	7	1.354	.920	1.000	-1.764	4.472
	8	4.186(*)	.960	.001	.930	7.441
	9	3.127	1.021	.144	-.333	6.587
	10	4.703(*)	1.032	.000	1.204	8.202
	11	5.811(*)	.981	.000	2.485	9.136
	12	6.451(*)	.985	.000	3.110	9.792
	1	-7.042(*)	.905	.000	-10.112	-3.972
	2	-6.377(*)	.840	.000	-9.224	-3.530
6	3	-4.481(*)	.799	.000	-7.191	-1.772
	4	-2.462(*)	.623	.006	-4.574	-.350
	6	-1.797	.750	.678	-4.339	.744
	7	-1.108	.827	1.000	-3.913	1.698
	8	1.723	.866	.959	-1.211	4.658
	9	.665	.928	1.000	-2.483	3.812
	10	2.241	.954	.726	-.994	5.475
	11	3.348(*)	.908	.017	.268	6.429
	12	3.989(*)	.918	.001	.876	7.101
	1	-5.244(*)	.934	.000	-8.411	-2.077
	2	-4.580(*)	.874	.000	-7.541	-1.618
	3	-2.684	.886	.160	-5.687	.320
7	4	-.665	.852	1.000	-3.555	2.225
	5	1.797	.750	.678	-.744	4.339
	7	.689	.706	1.000	-1.706	3.085
	8	3.521(*)	.871	.004	.568	6.474
	9	2.462	.969	.535	-.825	5.749
	10	4.038(*)	.983	.003	.705	7.370
	11	5.146(*)	.979	.000	1.828	8.464
	12	5.786(*)	.985	.000	2.448	9.124
	1	-5.934(*)	.976	.000	-9.243	-2.624

8	2	-5.269(*)	.950	.000	-8.489	-2.049
	3	-3.373(*)	.992	.049	-6.738	-.008
	4	-1.354	.920	1.000	-4.472	1.764
	5	1.108	.827	1.000	-1.698	3.913
	6	-.689	.706	1.000	-3.085	1.706
	8	2.831(*)	.754	.013	.274	5.389
	9	1.773	.896	.963	-1.265	4.810
	10	3.348(*)	.954	.033	.114	6.583
	11	4.456(*)	.919	.000	1.340	7.573
	12	5.097(*)	.933	.000	1.933	8.260
	1	-8.765(*)	1.034	.000	-12.270	-5.260
	2	-8.100(*)	.990	.000	-11.456	-4.744
9	3	-6.205(*)	1.008	.000	-9.622	-2.787
	4	-4.186(*)	.960	.001	-7.441	-.930
	5	-1.723	.866	.959	-4.658	1.211
	6	-3.521(*)	.871	.004	-6.474	-.568
	7	-2.831(*)	.754	.013	-5.389	-.274
	9	-1.059	.714	1.000	-3.481	1.363
	10	.517	.874	1.000	-2.446	3.480
	11	1.625	.888	.990	-1.385	4.635
	12	2.265	.908	.582	-.815	5.346
	1	-7.706(*)	1.011	.000	-11.134	-4.279
	2	-7.042(*)	1.025	.000	-10.518	-3.565
	3	-5.146(*)	1.054	.000	-8.721	-1.571
10	4	-3.127	1.021	.144	-6.587	.333
	5	-.665	.928	1.000	-3.812	2.483
	6	-2.462	.969	.535	-5.749	.825
	7	-1.773	.896	.963	-4.810	1.265
	8	1.059	.714	1.000	-1.363	3.481
	10	1.576	.742	.900	-.939	4.091
	11	2.684	.829	.083	-.126	5.493
	12	3.324(*)	.872	.011	.368	6.279
	1	-9.282(*)	1.035	.000	-12.792	-5.773

11	2	-8.617(*)	1.070	.000	-12.246	-4.989
	3	-6.722(*)	1.104	.000	-10.466	-2.977
	4	-4.703(*)	1.032	.000	-8.202	-1.204
	5	-2.241	.954	.726	-5.475	.994
	6	-4.038(*)	.983	.003	-7.370	-.705
	7	-3.348(*)	.954	.033	-6.583	-.114
	8	-.517	.874	1.000	-3.480	2.446
	9	-1.576	.742	.900	-4.091	.939
	11	1.108	.585	.982	-.874	3.090
	12	1.748	.668	.458	-.516	4.012
	1	-10.390(*)	1.021	.000	-13.852	-6.928
	2	-9.725(*)	1.048	.000	-13.277	-6.173
12	3	-7.830(*)	1.071	.000	-11.462	-4.197
	4	-5.811(*)	.981	.000	-9.136	-2.485
	5	-3.348(*)	.908	.017	-6.429	-.268
	6	-5.146(*)	.979	.000	-8.464	-1.828
	7	-4.456(*)	.919	.000	-7.573	-1.340
	8	-1.625	.888	.990	-4.635	1.385
	9	-2.684	.829	.083	-5.493	.126
	10	-1.108	.585	.982	-3.090	.874
	12	.640	.383	.999	-.658	1.938
	1	-11.030(*)	1.023	.000	-14.501	-7.560
	2	-10.366(*)	1.056	.000	-13.948	-6.783
	3	-8.470(*)	1.087	.000	-12.155	-4.785
	4	-6.451(*)	.985	.000	-9.792	-3.110
	5	-3.989(*)	.918	.001	-7.101	-.876
	6	-5.786(*)	.985	.000	-9.124	-2.448
	7	-5.097(*)	.933	.000	-8.260	-1.933
	8	-2.265	.908	.582	-5.346	.815
	9	-3.324(*)	.872	.011	-6.279	-.368
	10	-1.748	.668	.458	-4.012	.516
	11	-.640	.383	.999	-1.938	.658

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. TA Level

### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	57.763	1.152	55.498	60.028
Medium	49.903	.814	48.301	51.504
High	43.114	1.152	40.849	45.379

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	9468.138	2	4734.069	40.567	.000	.189	1.000
Error	40727.766	349	116.698				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig. (a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	7.860(*)	1.410	.000	4.476	11.244
	High	14.650(*)	1.629	.000	10.742	18.557
Medium	Low	-7.860(*)	1.410	.000	-11.244	-4.476



High	High	6.789(*)	1.410	.000	3.405	10.173
	Low	-14.650(*)	1.629	.000	-18.557	-10.742
	Medium	-6.789(*)	1.410	.000	-10.173	-3.405

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. TA Level \* year

#### Estimates

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.409	.656	55.119	57.699
	2	59.807	1.237	57.374	62.240
	3	59.955	1.365	57.270	62.639
	4	58.182	1.620	54.996	61.367
	5	57.000	1.661	53.734	60.266
	6	59.511	1.704	56.160	62.862
	7	61.136	1.758	57.678	64.595
	8	57.295	1.881	53.597	60.994
	9	58.330	1.839	54.712	61.947
	10	55.818	1.846	52.187	59.449
	11	55.227	1.813	51.661	58.794
	12	54.489	1.827	50.895	58.083
Medium	1	56.409	.464	55.497	57.321
	2	55.006	.875	53.285	56.726
	3	52.420	.965	50.522	54.318
	4	51.682	1.145	49.429	53.934
	5	49.909	1.174	47.600	52.218
	6	50.426	1.205	48.057	52.796
	7	49.688	1.243	47.242	52.133

High	8	47.545	1.330	44.930	50.161
	9	48.210	1.300	45.652	50.768
	10	47.176	1.306	44.608	49.744
	11	45.625	1.282	43.103	48.147
	12	44.739	1.292	42.197	47.280
	1	56.261	.656	54.971	57.551
	2	52.273	1.237	49.840	54.706
	3	49.023	1.365	46.339	51.707
	4	45.477	1.620	42.292	48.663
	5	41.045	1.661	37.780	44.311
	6	43.409	1.704	40.058	46.760
	7	40.455	1.758	36.996	43.913
	8	37.943	1.881	34.244	41.642
	9	39.420	1.839	35.803	43.038
	10	38.239	1.846	34.607	41.870
	11	37.057	1.813	33.491	40.623
	12	36.761	1.827	33.167	40.355

#### Multivariate Tests

TA Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.078	2.619(b)	11.000	339.000	.003	.078	.971
	Wilks' lambda	.922	2.619(b)	11.000	339.000	.003	.078	.971
	Hotelling's trace	.085	2.619(b)	11.000	339.000	.003	.078	.971
	Roy's largest root	.085	2.619(b)	11.000	339.000	.003	.078	.971
Medium	Pillai's trace	.194	7.401(b)	11.000	339.000	.000	.194	1.000
	Wilks' lambda	.806	7.401(b)	11.000	339.000	.000	.194	1.000
	Hotelling's trace	.240	7.401(b)	11.000	339.000	.000	.194	1.000
	Roy's largest root	.240	7.401(b)	11.000	339.000	.000	.194	1.000
High	Pillai's trace	.271	11.445(b)	11.000	339.000	.000	.271	1.000
	Wilks' lambda	.729	11.445(b)	11.000	339.000	.000	.271	1.000

Hotelling's trace	.371	11.445(b)	11.000	339.000	.000	.271	1.000
Roy's largest root	.371	11.445(b)	11.000	339.000	.000	.271	1.000

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

TA Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
Low	1	2	-3.398	1.141	.186	-7.267	.472
		3	-3.545	1.349	.448	-8.119	1.028
		4	-1.773	1.661	1.000	-7.406	3.860
		5	-.591	1.718	1.000	-6.416	5.234
		6	-3.102	1.772	.996	-9.111	2.907
		7	-4.727	1.852	.522	-11.006	1.552
		8	-.886	1.961	1.000	-7.537	5.764
		9	-1.920	1.918	1.000	-8.423	4.582
		10	.591	1.964	1.000	-6.068	7.250
		11	1.182	1.937	1.000	-5.387	7.751
		12	1.920	1.942	1.000	-4.664	8.505
	2	1	3.398	1.141	.186	-.472	7.267
		3	-.148	1.109	1.000	-3.908	3.613
		4	1.625	1.486	1.000	-3.412	6.662
		5	2.807	1.593	.996	-2.595	8.209
		6	.295	1.657	1.000	-5.324	5.915
		7	-1.330	1.802	1.000	-7.439	4.779
		8	2.511	1.878	1.000	-3.856	8.879
		9	1.477	1.945	1.000	-5.119	8.074
		10	3.989	2.031	.967	-2.897	10.874

3	11	4.580	1.988	.767	-2.160	11.319
	12	5.318	2.005	.425	-1.479	12.115
	1	3.545	1.349	.448	-1.028	8.119
	2	.148	1.109	1.000	-3.613	3.908
	4	1.773	1.402	1.000	-2.981	6.527
	5	2.955	1.516	.971	-2.186	8.095
	6	.443	1.681	1.000	-5.256	6.142
	7	-1.182	1.883	1.000	-7.566	5.203
	8	2.659	1.912	1.000	-3.825	9.144
	9	1.625	2.000	1.000	-5.158	8.408
	10	4.136	2.095	.964	-2.969	11.241
	11	4.727	2.032	.747	-2.164	11.619
4	12	5.466	2.062	.427	-1.526	12.458
	1	1.773	1.661	1.000	-3.860	7.406
	2	-1.625	1.486	1.000	-6.662	3.412
	3	-1.773	1.402	1.000	-6.527	2.981
	5	1.182	1.182	1.000	-2.825	5.189
	6	-1.330	1.617	1.000	-6.813	4.154
	7	-2.955	1.745	.998	-8.870	2.961
	8	.886	1.822	1.000	-5.291	7.064
	9	-.148	1.936	1.000	-6.713	6.418
	10	2.364	1.958	1.000	-4.275	9.003
	11	2.955	1.861	1.000	-3.355	9.264
	12	3.693	1.869	.964	-2.646	10.032
5	1	.591	1.718	1.000	-5.234	6.416
	2	-2.807	1.593	.996	-8.209	2.595
	3	-2.955	1.516	.971	-8.095	2.186
	4	-1.182	1.182	1.000	-5.189	2.825
	6	-2.511	1.422	.995	-7.333	2.311
	7	-4.136	1.570	.442	-9.459	1.187
	8	-.295	1.642	1.000	-5.864	5.273
	9	-1.330	1.761	1.000	-7.301	4.642
	10	1.182	1.810	1.000	-4.956	7.319

6	11	1.773	1.724	1.000	-4.072	7.618
	12	2.511	1.742	1.000	-3.395	8.417
	1	3.102	1.772	.996	-2.907	9.111
	2	-.295	1.657	1.000	-5.915	5.324
	3	-.443	1.681	1.000	-6.142	5.256
	4	1.330	1.617	1.000	-4.154	6.813
	5	2.511	1.422	.995	-2.311	7.333
	7	-1.625	1.340	1.000	-6.170	2.920
	8	2.216	1.652	1.000	-3.387	7.819
	9	1.182	1.839	1.000	-5.055	7.419
	10	3.693	1.865	.962	-2.630	10.016
	11	4.284	1.857	.764	-2.011	10.579
7	12	5.023	1.868	.392	-1.311	11.357
	1	4.727	1.852	.522	-1.552	11.006
	2	1.330	1.802	1.000	-4.779	7.439
	3	1.182	1.883	1.000	-5.203	7.566
	4	2.955	1.745	.998	-2.961	8.870
	5	4.136	1.570	.442	-1.187	9.459
	6	1.625	1.340	1.000	-2.920	6.170
	8	3.841	1.431	.397	-1.012	8.694
	9	2.807	1.700	.999	-2.957	8.570
	10	5.318	1.810	.207	-.818	11.454
	11	5.909	1.744	.050	-.004	11.822
	12	6.648(*)	1.770	.013	.646	12.650
8	1	.886	1.961	1.000	-5.764	7.537
	2	-2.511	1.878	1.000	-8.879	3.856
	3	-2.659	1.912	1.000	-9.144	3.825
	4	-.886	1.822	1.000	-7.064	5.291
	5	.295	1.642	1.000	-5.273	5.864
	6	-2.216	1.652	1.000	-7.819	3.387
	7	-3.841	1.431	.397	-8.694	1.012
	9	-1.034	1.355	1.000	-5.630	3.562
	10	1.477	1.658	1.000	-4.145	7.100

9	11	2.068	1.684	1.000	-3.643	7.779
	12	2.807	1.724	.999	-3.038	8.652
	1	1.920	1.918	1.000	-4.582	8.423
	2	-1.477	1.945	1.000	-8.074	5.119
	3	-1.625	2.000	1.000	-8.408	5.158
	4	.148	1.936	1.000	-6.418	6.713
	5	1.330	1.761	1.000	-4.642	7.301
	6	-1.182	1.839	1.000	-7.419	5.055
	7	-2.807	1.700	.999	-8.570	2.957
	8	1.034	1.355	1.000	-3.562	5.630
	10	2.511	1.407	.994	-2.260	7.283
	11	3.102	1.572	.964	-2.228	8.433
10	12	3.841	1.654	.750	-1.767	9.449
	1	-.591	1.964	1.000	-7.250	6.068
	2	-3.989	2.031	.967	-10.874	2.897
	3	-4.136	2.095	.964	-11.241	2.969
	4	-2.364	1.958	1.000	-9.003	4.275
	5	-1.182	1.810	1.000	-7.319	4.956
	6	-3.693	1.865	.962	-10.016	2.630
	7	-5.318	1.810	.207	-11.454	.818
	8	-1.477	1.658	1.000	-7.100	4.145
	9	-2.511	1.407	.994	-7.283	2.260
	11	.591	1.109	1.000	-3.170	4.352
	12	1.330	1.267	1.000	-2.967	5.626
11	1	-1.182	1.937	1.000	-7.751	5.387
	2	-4.580	1.988	.767	-11.319	2.160
	3	-4.727	2.032	.747	-11.619	2.164
	4	-2.955	1.861	1.000	-9.264	3.355
	5	-1.773	1.724	1.000	-7.618	4.072
	6	-4.284	1.857	.764	-10.579	2.011
	7	-5.909	1.744	.050	-11.822	.004
	8	-2.068	1.684	1.000	-7.779	3.643
	9	-3.102	1.572	.964	-8.433	2.228

Medium	12	10	-.591	1.109	1.000	-4.352	3.170
		12	.739	.726	1.000	-1.724	3.201
		1	-1.920	1.942	1.000	-8.505	4.664
		2	-5.318	2.005	.425	-12.115	1.479
		3	-5.466	2.062	.427	-12.458	1.526
		4	-3.693	1.869	.964	-10.032	2.646
		5	-2.511	1.742	1.000	-8.417	3.395
		6	-5.023	1.868	.392	-11.357	1.311
		7	-6.648(*)	1.770	.013	-12.650	-.646
		8	-2.807	1.724	.999	-8.652	3.038
		9	-3.841	1.654	.750	-9.449	1.767
		10	-1.330	1.267	1.000	-5.626	2.967
	1	11	-.739	.726	1.000	-3.201	1.724
		2	1.403	.807	.997	-1.333	4.139
		3	3.989(*)	.954	.002	.755	7.223
		4	4.727(*)	1.175	.005	.744	8.710
		5	6.500(*)	1.215	.000	2.381	10.619
		6	5.983(*)	1.253	.000	1.734	10.232
		7	6.722(*)	1.309	.000	2.282	11.162
		8	8.864(*)	1.387	.000	4.161	13.566
		9	8.199(*)	1.356	.000	3.601	12.797
		10	9.233(*)	1.389	.000	4.524	13.942
		11	10.784(*)	1.370	.000	6.139	15.429
		12	11.670(*)	1.373	.000	7.015	16.326
	2	1	-1.403	.807	.997	-4.139	1.333
		3	2.585	.784	.069	-.074	5.244
		4	3.324	1.050	.106	-.238	6.886
		5	5.097(*)	1.126	.001	1.277	8.916
		6	4.580(*)	1.172	.007	.606	8.553
		7	5.318(*)	1.274	.002	.998	9.638
		8	7.460(*)	1.328	.000	2.958	11.963
		9	6.795(*)	1.376	.000	2.131	11.460
		10	7.830(*)	1.436	.000	2.961	12.698

3	11	9.381(*)	1.405	.000	4.615	14.146
	12	10.267(*)	1.417	.000	5.461	15.073
	1	-3.989(*)	.954	.002	-7.223	-.755
	2	-2.585	.784	.069	-5.244	.074
	4	.739	.991	1.000	-2.623	4.100
	5	2.511	1.072	.731	-1.124	6.147
	6	1.994	1.188	.999	-2.035	6.024
	7	2.733	1.331	.936	-1.781	7.247
	8	4.875(*)	1.352	.023	.290	9.460
	9	4.210	1.414	.186	-.586	9.006
	10	5.244(*)	1.482	.030	.220	10.268
	11	6.795(*)	1.437	.000	1.922	11.669
4	12	7.682(*)	1.458	.000	2.738	12.626
	1	-4.727(*)	1.175	.005	-8.710	-.744
	2	-3.324	1.050	.106	-6.886	.238
	3	-.739	.991	1.000	-4.100	2.623
	5	1.773	.836	.902	-1.061	4.606
	6	1.256	1.143	1.000	-2.621	5.133
	7	1.994	1.234	.999	-2.189	6.177
	8	4.136	1.288	.091	-.232	8.505
	9	3.472	1.369	.539	-1.171	8.114
	10	4.506	1.384	.079	-.189	9.200
	11	6.057(*)	1.316	.000	1.595	10.519
	12	6.943(*)	1.322	.000	2.461	11.426
5	1	-6.500(*)	1.215	.000	-10.619	-2.381
	2	-5.097(*)	1.126	.001	-8.916	-1.277
	3	-2.511	1.072	.731	-6.147	1.124
	4	-1.773	.836	.902	-4.606	1.061
	6	-.517	1.006	1.000	-3.927	2.893
	7	.222	1.110	1.000	-3.542	3.986
	8	2.364	1.161	.943	-1.574	6.301
	9	1.699	1.245	1.000	-2.524	5.922
	10	2.733	1.280	.894	-1.607	7.073



6	11	4.284(*)	1.219	.032	.151	8.417
	12	5.170(*)	1.232	.002	.994	9.347
	1	-5.983(*)	1.253	.000	-10.232	-1.734
	2	-4.580(*)	1.172	.007	-8.553	-.606
	3	-1.994	1.188	.999	-6.024	2.035
	4	-1.256	1.143	1.000	-5.133	2.621
	5	.517	1.006	1.000	-2.893	3.927
	7	.739	.948	1.000	-2.475	3.952
	8	2.881	1.168	.610	-1.081	6.843
	9	2.216	1.301	.998	-2.194	6.626
	10	3.250	1.319	.611	-1.221	7.721
	11	4.801(*)	1.313	.019	.350	9.253
7	12	5.688(*)	1.321	.001	1.209	10.166
	1	-6.722(*)	1.309	.000	-11.162	-2.282
	2	-5.318(*)	1.274	.002	-9.638	-.998
	3	-2.733	1.331	.936	-7.247	1.781
	4	-1.994	1.234	.999	-6.177	2.189
	5	-.222	1.110	1.000	-3.986	3.542
	6	-.739	.948	1.000	-3.952	2.475
	8	2.142	1.012	.905	-1.290	5.574
	9	1.477	1.202	1.000	-2.598	5.553
	10	2.511	1.280	.967	-1.828	6.850
	11	4.063	1.233	.069	-.119	8.244
	12	4.949(*)	1.252	.006	.705	9.193
8	1	-8.864(*)	1.387	.000	-13.566	-4.161
	2	-7.460(*)	1.328	.000	-11.963	-2.958
	3	-4.875(*)	1.352	.023	-9.460	-.290
	4	-4.136	1.288	.091	-8.505	.232
	5	-2.364	1.161	.943	-6.301	1.574
	6	-2.881	1.168	.610	-6.843	1.081
	7	-2.142	1.012	.905	-5.574	1.290
	9	-.665	.958	1.000	-3.914	2.585
	10	.369	1.173	1.000	-3.606	4.345

9	11	1.920	1.191	.999	-2.118	5.959
	12	2.807	1.219	.768	-1.326	6.940
	1	-8.199(*)	1.356	.000	-12.797	-3.601
	2	-6.795(*)	1.376	.000	-11.460	-2.131
	3	-4.210	1.414	.186	-9.006	.586
	4	-3.472	1.369	.539	-8.114	1.171
	5	-1.699	1.245	1.000	-5.922	2.524
	6	-2.216	1.301	.998	-6.626	2.194
	7	-1.477	1.202	1.000	-5.553	2.598
	8	.665	.958	1.000	-2.585	3.914
	10	1.034	.995	1.000	-2.340	4.408
	11	2.585	1.112	.747	-1.184	6.354
10	12	3.472	1.169	.191	-.494	7.437
	1	-9.233(*)	1.389	.000	-13.942	-4.524
	2	-7.830(*)	1.436	.000	-12.698	-2.961
	3	-5.244(*)	1.482	.030	-10.268	-.220
	4	-4.506	1.384	.079	-9.200	.189
	5	-2.733	1.280	.894	-7.073	1.607
	6	-3.250	1.319	.611	-7.721	1.221
	7	-2.511	1.280	.967	-6.850	1.828
	8	-.369	1.173	1.000	-4.345	3.606
	9	-1.034	.995	1.000	-4.408	2.340
	11	1.551	.784	.963	-1.108	4.211
	12	2.438	.896	.364	-.600	5.475
11	1	-10.784(*)	1.370	.000	-15.429	-6.139
	2	-9.381(*)	1.405	.000	-14.146	-4.615
	3	-6.795(*)	1.437	.000	-11.669	-1.922
	4	-6.057(*)	1.316	.000	-10.519	-1.595
	5	-4.284(*)	1.219	.032	-8.417	-.151
	6	-4.801(*)	1.313	.019	-9.253	-.350
	7	-4.063	1.233	.069	-8.244	.119
	8	-1.920	1.191	.999	-5.959	2.118
	9	-2.585	1.112	.747	-6.354	1.184

High	12	10	-1.551	.784	.963	-4.211	1.108
		12	.886	.514	.997	-.855	2.628
		1	-11.670(*)	1.373	.000	-16.326	-7.015
		2	-10.267(*)	1.417	.000	-15.073	-5.461
		3	-7.682(*)	1.458	.000	-12.626	-2.738
		4	-6.943(*)	1.322	.000	-11.426	-2.461
		5	-5.170(*)	1.232	.002	-9.347	-.994
		6	-5.688(*)	1.321	.001	-10.166	-1.209
		7	-4.949(*)	1.252	.006	-9.193	-.705
		8	-2.807	1.219	.768	-6.940	1.326
		9	-3.472	1.169	.191	-7.437	.494
		10	-2.438	.896	.364	-5.475	.600
	1	11	-.886	.514	.997	-2.628	.855
		2	3.989(*)	1.141	.035	.119	7.858
		3	7.239(*)	1.349	.000	2.665	11.812
		4	10.784(*)	1.661	.000	5.151	16.417
		5	15.216(*)	1.718	.000	9.391	21.041
		6	12.852(*)	1.772	.000	6.843	18.861
		7	15.807(*)	1.852	.000	9.528	22.086
		8	18.318(*)	1.961	.000	11.668	24.968
		9	16.841(*)	1.918	.000	10.338	23.344
		10	18.023(*)	1.964	.000	11.364	24.682
		11	19.205(*)	1.937	.000	12.635	25.774
		12	19.500(*)	1.942	.000	12.916	26.084
	2	1	-3.989(*)	1.141	.035	-7.858	-.119
		3	3.250	1.109	.212	-.511	7.011
		4	6.795(*)	1.486	.000	1.758	11.833
		5	11.227(*)	1.593	.000	5.826	16.629
		6	8.864(*)	1.657	.000	3.244	14.483
		7	11.818(*)	1.802	.000	5.709	17.927
		8	14.330(*)	1.878	.000	7.962	20.697
		9	12.852(*)	1.945	.000	6.256	19.449
		10	14.034(*)	2.031	.000	7.149	20.919

3	11	15.216(*)	1.988	.000	8.477	21.955
	12	15.511(*)	2.005	.000	8.714	22.308
	1	-7.239(*)	1.349	.000	-11.812	-2.665
	2	-3.250	1.109	.212	-7.011	.511
	4	3.545	1.402	.546	-1.209	8.300
	5	7.977(*)	1.516	.000	2.836	13.118
	6	5.614	1.681	.059	-.085	11.313
	7	8.568(*)	1.883	.000	2.184	14.953
	8	11.080(*)	1.912	.000	4.595	17.564
	9	9.602(*)	2.000	.000	2.820	16.385
	10	10.784(*)	2.095	.000	3.679	17.889
	11	11.966(*)	2.032	.000	5.074	18.858
4	12	12.261(*)	2.062	.000	5.270	19.253
	1	-10.784(*)	1.661	.000	-16.417	-5.151
	2	-6.795(*)	1.486	.000	-11.833	-1.758
	3	-3.545	1.402	.546	-8.300	1.209
	5	4.432(*)	1.182	.014	.425	8.439
	6	2.068	1.617	1.000	-3.415	7.551
	7	5.023	1.745	.244	-.893	10.939
	8	7.534(*)	1.822	.003	1.356	13.712
	9	6.057	1.936	.118	-.509	12.622
	10	7.239(*)	1.958	.017	.600	13.878
	11	8.420(*)	1.861	.001	2.111	14.730
	12	8.716(*)	1.869	.000	2.377	15.055
5	1	-15.216(*)	1.718	.000	-21.041	-9.391
	2	-11.227(*)	1.593	.000	-16.629	-5.826
	3	-7.977(*)	1.516	.000	-13.118	-2.836
	4	-4.432(*)	1.182	.014	-8.439	-.425
	6	-2.364	1.422	.999	-7.186	2.458
	7	.591	1.570	1.000	-4.732	5.914
	8	3.102	1.642	.983	-2.466	8.671
	9	1.625	1.761	1.000	-4.347	7.597
	10	2.807	1.810	1.000	-3.331	8.944

6	11	3.989	1.724	.758	-1.856	9.833
	12	4.284	1.742	.616	-1.622	10.190
	1	-12.852(*)	1.772	.000	-18.861	-6.843
	2	-8.864(*)	1.657	.000	-14.483	-3.244
	3	-5.614	1.681	.059	-11.313	.085
	4	-2.068	1.617	1.000	-7.551	3.415
	5	2.364	1.422	.999	-2.458	7.186
	7	2.955	1.340	.848	-1.590	7.500
	8	5.466	1.652	.066	-.137	11.069
	9	3.989	1.839	.873	-2.248	10.226
	10	5.170	1.865	.321	-1.153	11.494
	11	6.352(*)	1.857	.045	.057	12.648
7	12	6.648(*)	1.868	.028	.314	12.982
	1	-15.807(*)	1.852	.000	-22.086	-9.528
	2	-11.818(*)	1.802	.000	-17.927	-5.709
	3	-8.568(*)	1.883	.000	-14.953	-2.184
	4	-5.023	1.745	.244	-10.939	.893
	5	-.591	1.570	1.000	-5.914	4.732
	6	-2.955	1.340	.848	-7.500	1.590
	8	2.511	1.431	.996	-2.342	7.364
	9	1.034	1.700	1.000	-4.729	6.798
	10	2.216	1.810	1.000	-3.920	8.352
	11	3.398	1.744	.971	-2.515	9.311
	12	3.693	1.770	.921	-2.309	9.695
8	1	-18.318(*)	1.961	.000	-24.968	-11.668
	2	-14.330(*)	1.878	.000	-20.697	-7.962
	3	-11.080(*)	1.912	.000	-17.564	-4.595
	4	-7.534(*)	1.822	.003	-13.712	-1.356
	5	-3.102	1.642	.983	-8.671	2.466
	6	-5.466	1.652	.066	-11.069	.137
	7	-2.511	1.431	.996	-7.364	2.342
	9	-1.477	1.355	1.000	-6.073	3.118
	10	-.295	1.658	1.000	-5.918	5.327

9	11	.886	1.684	1.000	-4.825	6.597
	12	1.182	1.724	1.000	-4.663	7.027
	1	-16.841(*)	1.918	.000	-23.344	-10.338
	2	-12.852(*)	1.945	.000	-19.449	-6.256
	3	-9.602(*)	2.000	.000	-16.385	-2.820
	4	-6.057	1.936	.118	-12.622	.509
	5	-1.625	1.761	1.000	-7.597	4.347
	6	-3.989	1.839	.873	-10.226	2.248
	7	-1.034	1.700	1.000	-6.798	4.729
	8	1.477	1.355	1.000	-3.118	6.073
	10	1.182	1.407	1.000	-3.590	5.953
	11	2.364	1.572	1.000	-2.967	7.694
10	12	2.659	1.654	1.000	-2.949	8.267
	1	-18.023(*)	1.964	.000	-24.682	-11.364
	2	-14.034(*)	2.031	.000	-20.919	-7.149
	3	-10.784(*)	2.095	.000	-17.889	-3.679
	4	-7.239(*)	1.958	.017	-13.878	-.600
	5	-2.807	1.810	1.000	-8.944	3.331
	6	-5.170	1.865	.321	-11.494	1.153
	7	-2.216	1.810	1.000	-8.352	3.920
	8	.295	1.658	1.000	-5.327	5.918
	9	-1.182	1.407	1.000	-5.953	3.590
	11	1.182	1.109	1.000	-2.579	4.943
	12	1.477	1.267	1.000	-2.819	5.774
11	1	-19.205(*)	1.937	.000	-25.774	-12.635
	2	-15.216(*)	1.988	.000	-21.955	-8.477
	3	-11.966(*)	2.032	.000	-18.858	-5.074
	4	-8.420(*)	1.861	.001	-14.730	-2.111
	5	-3.989	1.724	.758	-9.833	1.856
	6	-6.352(*)	1.857	.045	-12.648	-.057
	7	-3.398	1.744	.971	-9.311	2.515
	8	-.886	1.684	1.000	-6.597	4.825
	9	-2.364	1.572	1.000	-7.694	2.967

12	10	-1.182	1.109	1.000	-4.943	2.579
	12	.295	.726	1.000	-2.167	2.758
	1	-19.500(*)	1.942	.000	-26.084	-12.916
	2	-15.511(*)	2.005	.000	-22.308	-8.714
	3	-12.261(*)	2.062	.000	-19.253	-5.270
	4	-8.716(*)	1.869	.000	-15.055	-2.377
	5	-4.284	1.742	.616	-10.190	1.622
	6	-6.648(*)	1.868	.028	-12.982	-.314
	7	-3.693	1.770	.921	-9.695	2.309
	8	-1.182	1.724	1.000	-7.027	4.663
	9	-2.659	1.654	1.000	-8.267	2.949
	10	-1.477	1.267	1.000	-5.774	2.819
	11	-.295	.726	1.000	-2.758	2.167

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. TA Level \* year

#### Estimates

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	56.409	.656	55.119	57.699
	2	59.807	1.237	57.374	62.240
	3	59.955	1.365	57.270	62.639
	4	58.182	1.620	54.996	61.367
	5	57.000	1.661	53.734	60.266
	6	59.511	1.704	56.160	62.862
	7	61.136	1.758	57.678	64.595

Medium	8	57.295	1.881	53.597	60.994
	9	58.330	1.839	54.712	61.947
	10	55.818	1.846	52.187	59.449
	11	55.227	1.813	51.661	58.794
	12	54.489	1.827	50.895	58.083
	1	56.409	.464	55.497	57.321
	2	55.006	.875	53.285	56.726
	3	52.420	.965	50.522	54.318
	4	51.682	1.145	49.429	53.934
	5	49.909	1.174	47.600	52.218
	6	50.426	1.205	48.057	52.796
	7	49.688	1.243	47.242	52.133
High	8	47.545	1.330	44.930	50.161
	9	48.210	1.300	45.652	50.768
	10	47.176	1.306	44.608	49.744
	11	45.625	1.282	43.103	48.147
	12	44.739	1.292	42.197	47.280
	1	56.261	.656	54.971	57.551
	2	52.273	1.237	49.840	54.706
	3	49.023	1.365	46.339	51.707
	4	45.477	1.620	42.292	48.663
	5	41.045	1.661	37.780	44.311
	6	43.409	1.704	40.058	46.760
	7	40.455	1.758	36.996	43.913
	8	37.943	1.881	34.244	41.642
	9	39.420	1.839	35.803	43.038
	10	38.239	1.846	34.607	41.870
	11	37.057	1.813	33.491	40.623
	12	36.761	1.827	33.167	40.355

#### Univariate Tests

Measure: MEASURE\_1



year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	1.440	2	.720	.019	.981	.000	.053
	Error	13210.807	349	37.853				
2	Contrast	2591.653	2	1295.827	9.622	.000	.052	.981
	Error	47002.165	349	134.677				
3	Contrast	5634.614	2	2817.307	17.189	.000	.090	1.000
	Error	57202.659	349	163.904				
4	Contrast	7103.761	2	3551.881	15.388	.000	.081	.999
	Error	80559.227	349	230.829				
5	Contrast	11269.227	2	5634.614	23.221	.000	.117	1.000
	Error	84684.364	349	242.649				
6	Contrast	11502.563	2	5751.281	22.514	.000	.114	1.000
	Error	89152.301	349	255.451				
7	Contrast	18928.480	2	9464.240	34.785	.000	.166	1.000
	Error	94953.994	349	272.074				
8	Contrast	16478.940	2	8239.470	26.472	.000	.132	1.000
	Error	108626.670	349	311.251				
9	Contrast	15771.253	2	7885.626	26.492	.000	.132	1.000
	Error	103884.108	349	297.662				
10	Contrast	13599.699	2	6799.849	22.668	.000	.115	1.000
	Error	104692.619	349	299.979				
11	Contrast	14550.804	2	7275.402	25.145	.000	.126	1.000
	Error	100979.420	349	289.339				
12	Contrast	13896.409	2	6948.205	23.644	.000	.119	1.000
	Error	102559.955	349	293.868				

Each F tests the simple effects of TA Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig. (a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	.000	.803	1.000	-1.927	1.927
		High	.148	.928	.998	-2.078	2.373
	Medium	Low	.000	.803	1.000	-1.927	1.927
		High	.148	.803	.997	-1.779	2.075
	High	Low	-.148	.928	.998	-2.373	2.078
		Medium	-.148	.803	.997	-2.075	1.779
2	Low	Medium	4.801(*)	1.515	.005	1.166	8.436
		High	7.534(*)	1.750	.000	3.337	11.732
	Medium	Low	-4.801(*)	1.515	.005	-8.436	-1.166
		High	2.733	1.515	.201	-.902	6.368
	High	Low	-7.534(*)	1.750	.000	-11.732	-3.337
		Medium	-2.733	1.515	.201	-6.368	.902
3	Low	Medium	7.534(*)	1.671	.000	3.524	11.544
		High	10.932(*)	1.930	.000	6.301	15.563
	Medium	Low	-7.534(*)	1.671	.000	-11.544	-3.524
		High	3.398	1.671	.123	-.613	7.408
	High	Low	-10.932(*)	1.930	.000	-15.563	-6.301
		Medium	-3.398	1.671	.123	-7.408	.613
4	Low	Medium	6.500(*)	1.984	.003	1.741	11.259
		High	12.705(*)	2.290	.000	7.209	18.200
	Medium	Low	-6.500(*)	1.984	.003	-11.259	-1.741
		High	6.205(*)	1.984	.006	1.445	10.964
	High	Low	-12.705(*)	2.290	.000	-18.200	-7.209
		Medium	-6.205(*)	1.984	.006	-10.964	-1.445
5	Low	Medium	7.091(*)	2.034	.002	2.211	11.970
		High	15.955(*)	2.348	.000	10.320	21.589
	Medium	Low	-7.091(*)	2.034	.002	-11.970	-2.211
		High	8.864(*)	2.034	.000	3.984	13.743
	High	Low	-15.955(*)	2.348	.000	-21.589	-10.320

6	Low	Medium	-8.864(*)	2.034	.000	-13.743	-3.984
		Medium	9.085(*)	2.087	.000	4.079	14.092
		High	16.102(*)	2.410	.000	10.321	21.883
	Medium	Low	-9.085(*)	2.087	.000	-14.092	-4.079
		High	7.017(*)	2.087	.003	2.011	12.024
		Low	-16.102(*)	2.410	.000	-21.883	-10.321
7	Low	Medium	-7.017(*)	2.087	.003	-12.024	-2.011
		Medium	11.449(*)	2.154	.000	6.282	16.616
		High	20.682(*)	2.487	.000	14.716	26.648
	Medium	Low	-11.449(*)	2.154	.000	-16.616	-6.282
		High	9.233(*)	2.154	.000	4.066	14.400
		Low	-20.682(*)	2.487	.000	-26.648	-14.716
8	High	Medium	-9.233(*)	2.154	.000	-14.400	-4.066
		Medium	9.750(*)	2.303	.000	4.224	15.276
		High	19.352(*)	2.660	.000	12.971	25.734
	Medium	Low	-9.750(*)	2.303	.000	-15.276	-4.224
		High	9.602(*)	2.303	.000	4.076	15.129
		Low	-19.352(*)	2.660	.000	-25.734	-12.971
9	High	Medium	-9.602(*)	2.303	.000	-15.129	-4.076
		Medium	10.119(*)	2.253	.000	4.715	15.524
		High	18.909(*)	2.601	.000	12.669	25.149
	Medium	Low	-10.119(*)	2.253	.000	-15.524	-4.715
		High	8.790(*)	2.253	.000	3.385	14.194
		Low	-18.909(*)	2.601	.000	-25.149	-12.669
10	High	Medium	-8.790(*)	2.253	.000	-14.194	-3.385
		Medium	8.642(*)	2.261	.000	3.217	14.067
		High	17.580(*)	2.611	.000	11.315	23.844
	Medium	Low	-8.642(*)	2.261	.000	-14.067	-3.217
		High	8.938(*)	2.261	.000	3.512	14.363
		Low	-17.580(*)	2.611	.000	-23.844	-11.315
11	High	Medium	-8.938(*)	2.261	.000	-14.363	-3.512
		Medium	9.602(*)	2.221	.000	4.274	14.931
		High	18.170(*)	2.564	.000	12.018	24.323
	Medium	Low	-9.602(*)	2.221	.000	-14.931	-4.274
		High	8.568(*)	2.221	.000	3.240	13.896

12	High	Low	-18.170(*)	2.564	.000	-24.323	-12.018
		Medium	-8.568(*)	2.221	.000	-13.896	-3.240
	Low	Medium	9.750(*)	2.238	.000	4.380	15.120
		High	17.727(*)	2.584	.000	11.527	23.928
	Medium	Low	-9.750(*)	2.238	.000	-15.120	-4.380
		High	7.977(*)	2.238	.001	2.607	13.347
	High	Low	-17.727(*)	2.584	.000	-23.928	-11.527
		Medium	-7.977(*)	2.238	.001	-13.347	-2.607

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
TA Level 1	Low	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	1192.616	1	1192.616	2.499	.118	.028	.346
	Quadratic	1335.317	1	1335.317	6.291	.014	.067	.699
	Cubic	4.680	1	4.680	.027	.870	.000	.053

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
TA Level 2	Medium	176

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	23218.297	1	23218.297	56.649	.000	.245	1.000
	Quadratic	330.395	1	330.395	1.556	.214	.009	.237

a. Computed using alpha = .05

### Between-Subjects Factors

	Value Label	N
TA Level 3	High	88

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	33909.063	1	33909.063	65.476	.000	.429	1.000
	Quadratic	4316.453	1	4316.453	21.899	.000	.201	.996

a. Computed using alpha = .05

## General Linear Model of Level of Total Assets for Total CSR

### Between-Subjects Factors

	Value Label	N
TA Level 1	Low	88
2	Medium	176
3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	45514.366	11	4137.670	6.863	.000	.019	1.000
	Greenhouse-Geisser	45514.366	4.746	9590.273	6.863	.000	.019	.998
	Huynh-Feldt	45514.366	4.847	9390.478	6.863	.000	.019	.998
	Lower-bound	45514.366	1	45514.366	6.863	.009	.019	.743
year * TAllevel	Sphericity Assumed	49655.917	22	2257.087	3.744	.000	.021	1.000
	Greenhouse-Geisser	49655.917	9.492	5231.467	3.744	.000	.021	.995
	Huynh-Feldt	49655.917	9.694	5122.479	3.744	.000	.021	.996
	Lower-bound	49655.917	2	24827.958	3.744	.025	.021	.683
Error(year)	Sphericity Assumed	2314616.652	3839	602.922				
	Greenhouse-Geisser	2314616.652	1656.315	1397.450				
	Huynh-Feldt	2314616.652	1691.555	1368.336				
	Lower-bound	2314616.652	349	6632.139				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	21091.102	1	21091.102	8.963	.003	.025	.847
	Quadratic	18050.413	1	18050.413	14.650	.000	.040	.968
	Cubic	581.551	1	581.551	.861	.354	.002	.152
year * TAllevel	Linear	35614.398	2	17807.199	7.567	.001	.042	.944
	Quadratic	1387.851	2	693.925	.563	.570	.003	.143
	Cubic	777.624	2	388.812	.575	.563	.003	.145
Error(year)	Linear	821250.140	349	2353.152				
	Quadratic	430004.033	349	1232.103				

Cubic	235840.098	349	675.760				
a. Computed using alpha = .05							

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
TAlevel	201054.370	2	100527.185	5.280	.006	.029	.834
Error	6644147.234	349	19037.671				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	301.292	2.168	297.028	305.555
2	303.958	2.355	299.327	308.589
3	304.561	2.524	299.597	309.525
4	302.820	2.639	297.629	308.011
5	302.150	2.616	297.004	307.295
6	304.047	2.511	299.109	308.986
7	306.042	2.694	300.744	311.339
8	302.189	2.775	296.731	307.648
9	301.714	2.740	296.324	307.104
10	299.856	2.655	294.635	305.077

11	295.044	2.719	289.695	300.392
12	294.150	2.718	288.803	299.496

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-2.667	1.238	.882	-6.864	1.530
	3	-3.269	1.524	.889	-8.438	1.900
	4	-1.528	1.943	1.000	-8.118	5.061
	5	-.858	2.054	1.000	-7.824	6.108
	6	-2.756	2.192	1.000	-10.190	4.678
	7	-4.750	2.330	.942	-12.651	3.151
	8	-.898	2.363	1.000	-8.912	7.116
	9	-.422	2.278	1.000	-8.146	7.302
	10	1.436	2.238	1.000	-6.154	9.026
	11	6.248	2.389	.460	-1.852	14.348
	12	7.142	2.413	.195	-1.040	15.324
2	1	2.667	1.238	.882	-1.530	6.864
	3	-.602	1.190	1.000	-4.636	3.431
	4	1.138	1.752	1.000	-4.803	7.079
	5	1.809	1.954	1.000	-4.818	8.435
	6	-.089	2.135	1.000	-7.329	7.151
	7	-2.083	2.275	1.000	-9.796	5.629
	8	1.769	2.251	1.000	-5.864	9.402
	9	2.244	2.243	1.000	-5.359	9.848
	10	4.102	2.220	.988	-3.424	11.628
	11	8.915(*)	2.346	.011	.959	16.871
	12	9.809(*)	2.363	.003	1.797	17.821
3	1	3.269	1.524	.889	-1.900	8.438



4	2	.602	1.190	1.000	-3.431	4.636
	4	1.741	1.580	1.000	-3.618	7.099
	5	2.411	1.935	1.000	-4.151	8.973
	6	.513	2.120	1.000	-6.675	7.702
	7	-1.481	2.297	1.000	-9.268	6.306
	8	2.371	2.262	1.000	-5.299	10.041
	9	2.847	2.247	1.000	-4.772	10.465
	10	4.705	2.238	.912	-2.883	12.292
	11	9.517(*)	2.325	.003	1.634	17.401
	12	10.411(*)	2.331	.001	2.507	18.315
	1	1.528	1.943	1.000	-5.061	8.118
	2	-1.138	1.752	1.000	-7.079	4.803
5	3	-1.741	1.580	1.000	-7.099	3.618
	5	.670	1.325	1.000	-3.823	5.164
	6	-1.227	1.779	1.000	-7.260	4.806
	7	-3.222	1.945	.999	-9.815	3.372
	8	.631	2.004	1.000	-6.165	7.426
	9	1.106	2.078	1.000	-5.941	8.153
	10	2.964	2.100	1.000	-4.157	10.085
	11	7.777(*)	2.217	.033	.260	15.293
	12	8.670(*)	2.173	.005	1.303	16.038
	1	.858	2.054	1.000	-6.108	7.824
	2	-1.809	1.954	1.000	-8.435	4.818
	3	-2.411	1.935	1.000	-8.973	4.151
6	4	-.670	1.325	1.000	-5.164	3.823
	6	-1.898	1.490	1.000	-6.949	3.153
	7	-3.892	1.741	.824	-9.794	2.010
	8	-.040	1.938	1.000	-6.611	6.531
	9	.436	1.986	1.000	-6.300	7.171
	10	2.294	2.055	1.000	-4.674	9.261
	11	7.106	2.195	.084	-.336	14.548
	12	8.000(*)	2.166	.017	.656	15.344
	1	2.756	2.192	1.000	-4.678	10.190

7	2	.089	2.135	1.000	-7.151	7.329
	3	-.513	2.120	1.000	-7.702	6.675
	4	1.227	1.779	1.000	-4.806	7.260
	5	1.898	1.490	1.000	-3.153	6.949
	7	-1.994	1.236	.999	-6.185	2.197
	8	1.858	1.615	1.000	-3.617	7.333
	9	2.333	1.747	1.000	-3.589	8.256
	10	4.191	1.890	.839	-2.219	10.601
	11	9.004(*)	2.103	.002	1.872	16.136
	12	9.898(*)	2.085	.000	2.827	16.969
	1	4.750	2.330	.942	-3.151	12.651
	2	2.083	2.275	1.000	-5.629	9.796
8	3	1.481	2.297	1.000	-6.306	9.268
	4	3.222	1.945	.999	-3.372	9.815
	5	3.892	1.741	.824	-2.010	9.794
	6	1.994	1.236	.999	-2.197	6.185
	8	3.852	1.401	.340	-.898	8.603
	9	4.328	1.579	.348	-1.028	9.683
	10	6.186(*)	1.802	.043	.077	12.294
	11	10.998(*)	2.082	.000	3.938	18.058
	12	11.892(*)	2.059	.000	4.910	18.875
	1	.898	2.363	1.000	-7.116	8.912
	2	-1.769	2.251	1.000	-9.402	5.864
	3	-2.371	2.262	1.000	-10.041	5.299
9	4	-.631	2.004	1.000	-7.426	6.165
	5	.040	1.938	1.000	-6.531	6.611
	6	-1.858	1.615	1.000	-7.333	3.617
	7	-3.852	1.401	.340	-8.603	.898
	9	.475	1.149	1.000	-3.420	4.371
	10	2.333	1.559	1.000	-2.954	7.620
	11	7.146(*)	1.790	.005	1.077	13.214
	12	8.040(*)	1.880	.002	1.665	14.415
	1	.422	2.278	1.000	-7.302	8.146

10	2	-2.244	2.243	1.000	-9.848	5.359
	3	-2.847	2.247	1.000	-10.465	4.772
	4	-1.106	2.078	1.000	-8.153	5.941
	5	-.436	1.986	1.000	-7.171	6.300
	6	-2.333	1.747	1.000	-8.256	3.589
	7	-4.328	1.579	.348	-9.683	1.028
	8	-.475	1.149	1.000	-4.371	3.420
	10	1.858	1.347	1.000	-2.710	6.426
	11	6.670(*)	1.640	.004	1.108	12.233
	12	7.564(*)	1.728	.001	1.704	13.425
	1	-1.436	2.238	1.000	-9.026	6.154
	2	-4.102	2.220	.988	-11.628	3.424
11	3	-4.705	2.238	.912	-12.292	2.883
	4	-2.964	2.100	1.000	-10.085	4.157
	5	-2.294	2.055	1.000	-9.261	4.674
	6	-4.191	1.890	.839	-10.601	2.219
	7	-6.186(*)	1.802	.043	-12.294	-.077
	8	-2.333	1.559	1.000	-7.620	2.954
	9	-1.858	1.347	1.000	-6.426	2.710
	11	4.813(*)	1.130	.002	.980	8.645
	12	5.706(*)	1.359	.002	1.100	10.313
	1	-6.248	2.389	.460	-14.348	1.852
	2	-8.915(*)	2.346	.011	-16.871	-.959
	3	-9.517(*)	2.325	.003	-17.401	-1.634
12	4	-7.777(*)	2.217	.033	-15.293	-.260
	5	-7.106	2.195	.084	-14.548	.336
	6	-9.004(*)	2.103	.002	-16.136	-1.872
	7	-10.998(*)	2.082	.000	-18.058	-3.938
	8	-7.146(*)	1.790	.005	-13.214	-1.077
	9	-6.670(*)	1.640	.004	-12.233	-1.108
	10	-4.813(*)	1.130	.002	-8.645	-.980
	12	.894	.978	1.000	-2.423	4.210
	1	-7.142	2.413	.195	-15.324	1.040

2	-9.809(*)	2.363	.003	-17.821	-1.797
3	-10.411(*)	2.331	.001	-18.315	-2.507
4	-8.670(*)	2.173	.005	-16.038	-1.303
5	-8.000(*)	2.166	.017	-15.344	-.656
6	-9.898(*)	2.085	.000	-16.969	-2.827
7	-11.892(*)	2.059	.000	-18.875	-4.910
8	-8.040(*)	1.880	.002	-14.415	-1.665
9	-7.564(*)	1.728	.001	-13.425	-1.704
10	-5.706(*)	1.359	.002	-10.313	-1.100
11	-.894	.978	1.000	-4.210	2.423

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. TA Level

### Estimates

Measure: MEASURE\_1

TA Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	311.602	4.246	303.251	319.953
Medium	294.920	3.002	289.015	300.825
High	297.933	4.246	289.582	306.284

### Pairwise Comparisons

Measure: MEASURE\_1

(I) TA Level	(J) TA Level	Mean Difference (I-J)	Std. Error	Sig. (a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	16.682(*)	5.200	.004	4.205	29.158

Medium	High	13.670	6.005	.069	-.737	28.076
	Low	-16.682(*)	5.200	.004	-29.158	-4.205
High	High	-3.012	5.200	.916	-15.489	9.464
	Low	-13.670	6.005	.069	-28.076	.737
	Medium	3.012	5.200	.916	-9.464	15.489

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	16754.531	2	8377.265	5.280	.006	.029	.834
Error	553678.936	349	1586.473				

The F tests the effect of TA Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. TA Level \* year

Measure: MEASURE\_1

TA Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	301.50	4.113	293.411	309.589
	2	310.95	4.467	302.168	319.741
	3	313.26	4.789	303.843	322.680
	4	310.43	5.008	300.582	320.281
	5	310.80	4.964	301.032	320.559
	6	311.85	4.764	302.483	321.222
	7	315.40	5.111	305.346	325.449
	8	314.52	5.266	304.166	324.879
	9	314.17	5.200	303.944	324.397

Medium	10	314.48	5.037	304.571	324.384
	11	311.94	5.160	301.795	322.091
	12	309.92	5.158	299.776	320.065
	1	296.53	2.908	290.814	302.254
	2	297.51	3.159	291.298	303.724
	3	295.74	3.386	289.079	302.398
	4	297.16	3.541	290.200	304.129
	5	298.45	3.510	291.545	305.353
	6	294.94	3.369	288.312	301.563
	7	296.74	3.614	289.631	303.846
	8	294.27	3.723	286.950	301.596
	9	295.60	3.677	288.365	302.828
High	10	294.91	3.562	287.904	301.914
	11	288.61	3.648	281.432	295.784
	12	288.59	3.647	281.412	295.759
	1	305.84	4.113	297.752	313.930
	2	303.41	4.467	294.623	312.196
	3	304.68	4.789	295.263	314.100
	4	300.86	5.008	291.014	310.713
	5	297.20	4.964	287.441	306.968
	6	305.35	4.764	295.983	314.722
	7	305.99	5.111	295.937	316.040
	8	297.77	5.266	287.416	308.129
	9	295.38	5.200	285.148	305.602
	10	290.18	5.037	280.275	300.088
	11	284.58	5.160	274.432	294.727
	12	283.94	5.158	273.799	294.088

## APPENDIX N

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for ROA

#### *General Linear Model with Level of Community Relations for ROA*

##### Between-Subjects Factors

	Value Label	N
Total Community Level	1 Low	172
	2 Medium	81
	3 High	68

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3501.069	11	318.279	12.461	.000	.038	1.000
	Greenhouse-Geisser	3501.069	6.881	508.827	12.461	.000	.038	1.000
	Huynh-Feldt	3501.069	7.093	493.612	12.461	.000	.038	1.000
	Lower-bound	3501.069	1	3501.069	12.461	.000	.038	.941
year * comtot_ivl	Sphericity Assumed	1472.254	22	66.921	2.620	.000	.016	1.000
	Greenhouse-Geisser	1472.254	13.761	106.985	2.620	.001	.016	.990
	Huynh-Feldt	1472.254	14.186	103.786	2.620	.001	.016	.992
	Lower-bound	1472.254	2	736.127	2.620	.074	.016	.520
Error(year)	Sphericity Assumed	89344.699	3498	25.542				
	Greenhouse-Geisser	89344.699	2188.053	40.833				

Huynh-Feldt	89344.699	2255.498	39.612				
Lower-bound	89344.699	318	280.958				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	155.905	1	155.905	2.493	.115	.008	.350
	Quadratic	2083.312	1	2083.312	36.718	.000	.104	1.000
	Cubic	645.574	1	645.574	24.269	.000	.071	.998
year * comtot_lvl	Linear	461.809	2	230.904	3.693	.026	.023	.676
	Quadratic	599.213	2	299.607	5.281	.006	.032	.833
	Cubic	12.896	2	6.448	.242	.785	.002	.088
Error(year)	Linear	19883.088	318	62.525				
	Quadratic	18042.660	318	56.738				
	Cubic	8459.097	318	26.601				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	208.560	2	104.280	.390	.678	.002	.113
Error	85070.793	318	267.518				

a. Computed using alpha = .05



## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.352	.394	6.577	8.126
2	6.760	.466	5.844	7.676
3	7.169	.377	6.428	7.911
4	8.322	.336	7.660	8.984
5	8.073	.385	7.315	8.831
6	8.301	.358	7.597	9.005
7	8.091	.420	7.265	8.917
8	7.971	.415	7.155	8.788
9	8.602	.415	7.785	9.419
10	8.630	.449	7.746	9.514
11	6.374	.402	5.583	7.166
12	5.017	.464	4.105	5.929

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.591	.356	.999	-.617	1.799
	3	.182	.316	1.000	-.891	1.256
	4	-.971	.362	.400	-2.199	.258

2	5	-.721	.402	.994	-2.086	.643
	6	-.950	.384	.603	-2.252	.353
	7	-.739	.455	.999	-2.284	.805
	8	-.620	.430	1.000	-2.080	.840
	9	-1.250	.464	.388	-2.825	.324
	10	-1.279	.520	.618	-3.044	.486
	11	.977	.456	.889	-.569	2.524
	12	2.335(*)	.508	.000	.610	4.060
	1	-.591	.356	.999	-1.799	.617
	3	-.409	.353	1.000	-1.606	.789
	4	-1.562(*)	.406	.010	-2.941	-.183
	5	-1.313	.439	.181	-2.803	.178
3	6	-1.541(*)	.449	.044	-3.066	-.016
	7	-1.331	.542	.621	-3.169	.508
	8	-1.211	.493	.619	-2.883	.461
	9	-1.842(*)	.492	.014	-3.512	-.172
	10	-1.870(*)	.551	.050	-3.738	-.001
	11	.386	.499	1.000	-1.307	2.079
	12	1.744	.575	.160	-.209	3.696
	1	-.182	.316	1.000	-1.256	.891
	2	.409	.353	1.000	-.789	1.606
	4	-1.153(*)	.262	.001	-2.042	-.264
	5	-.904	.332	.364	-2.030	.223
	6	-1.132(*)	.321	.032	-2.222	-.042
4	7	-.922	.414	.834	-2.328	.484
	8	-.802	.409	.968	-2.191	.586
	9	-1.433	.434	.069	-2.906	.041
	10	-1.461	.476	.142	-3.075	.153
	11	.795	.443	.994	-.707	2.297
	12	2.152(*)	.501	.002	.451	3.854
	1	.971	.362	.400	-.258	2.199
	2	1.562(*)	.406	.010	.183	2.941
	3	1.153(*)	.262	.001	.264	2.042

5	5	.249	.231	1.000	-.535	1.034
	6	.021	.251	1.000	-.832	.874
	7	.231	.355	1.000	-.973	1.435
	8	.351	.363	1.000	-.883	1.584
	9	-.280	.384	1.000	-1.581	1.022
	10	-.308	.412	1.000	-1.707	1.091
	11	1.948(*)	.423	.000	.513	3.383
	12	3.306(*)	.512	.000	1.569	5.043
	1	.721	.402	.994	-.643	2.086
	2	1.313	.439	.181	-.178	2.803
	3	.904	.332	.364	-.223	2.030
	4	-.249	.231	1.000	-1.034	.535
6	6	-.228	.273	1.000	-1.156	.699
	7	-.018	.375	1.000	-1.292	1.256
	8	.101	.382	1.000	-1.196	1.399
	9	-.529	.431	1.000	-1.990	.932
	10	-.557	.436	1.000	-2.035	.921
	11	1.699(*)	.453	.014	.160	3.237
	12	3.056(*)	.558	.000	1.162	4.951
	1	.950	.384	.603	-.353	2.252
	2	1.541(*)	.449	.044	.016	3.066
	3	1.132(*)	.321	.032	.042	2.222
	4	-.021	.251	1.000	-.874	.832
	5	.228	.273	1.000	-.699	1.156
7	7	.210	.287	1.000	-.762	1.183
	8	.330	.322	1.000	-.764	1.423
	9	-.301	.369	1.000	-1.551	.950
	10	-.329	.412	1.000	-1.728	1.069
	11	1.927(*)	.406	.000	.549	3.305
	12	3.284(*)	.517	.000	1.528	5.040
	1	.739	.455	.999	-.805	2.284
	2	1.331	.542	.621	-.508	3.169
	3	.922	.414	.834	-.484	2.328

8	4	-.231	.355	1.000	-1.435	.973
	5	.018	.375	1.000	-1.256	1.292
	6	-.210	.287	1.000	-1.183	.762
	8	.120	.356	1.000	-1.087	1.326
	9	-.511	.423	1.000	-1.947	.925
	10	-.539	.444	1.000	-2.048	.969
	11	1.717(*)	.460	.015	.154	3.279
	12	3.074(*)	.572	.000	1.133	5.015
	1	.620	.430	1.000	-.840	2.080
	2	1.211	.493	.619	-.461	2.883
	3	.802	.409	.968	-.586	2.191
	4	-.351	.363	1.000	-1.584	.883
9	5	-.101	.382	1.000	-1.399	1.196
	6	-.330	.322	1.000	-1.423	.764
	7	-.120	.356	1.000	-1.326	1.087
	9	-.631	.363	.997	-1.862	.601
	10	-.659	.443	1.000	-2.164	.846
	11	1.597(*)	.438	.021	.109	3.085
	12	2.955(*)	.538	.000	1.128	4.781
	1	1.250	.464	.388	-.324	2.825
	2	1.842(*)	.492	.014	.172	3.512
	3	1.433	.434	.069	-.041	2.906
	4	.280	.384	1.000	-1.022	1.581
	5	.529	.431	1.000	-.932	1.990
10	6	.301	.369	1.000	-.950	1.551
	7	.511	.423	1.000	-.925	1.947
	8	.631	.363	.997	-.601	1.862
	10	-.028	.444	1.000	-1.536	1.479
	11	2.228(*)	.439	.000	.736	3.719
	12	3.585(*)	.519	.000	1.824	5.346
	1	1.279	.520	.618	-.486	3.044
	2	1.870(*)	.551	.050	.001	3.738
	3	1.461	.476	.142	-.153	3.075

11	4	.308	.412	1.000	-1.091	1.707
	5	.557	.436	1.000	-.921	2.035
	6	.329	.412	1.000	-1.069	1.728
	7	.539	.444	1.000	-.969	2.048
	8	.659	.443	1.000	-.846	2.164
	9	.028	.444	1.000	-1.479	1.536
	11	2.256(*)	.424	.000	.817	3.695
	12	3.613(*)	.548	.000	1.754	5.473
	1	-.977	.456	.889	-2.524	.569
	2	-.386	.499	1.000	-2.079	1.307
	3	-.795	.443	.994	-2.297	.707
12	4	-1.948(*)	.423	.000	-3.383	-.513
	5	-1.699(*)	.453	.014	-3.237	-.160
	6	-1.927(*)	.406	.000	-3.305	-.549
	7	-1.717(*)	.460	.015	-3.279	-.154
	8	-1.597(*)	.438	.021	-3.085	-.109
	9	-2.228(*)	.439	.000	-3.719	-.736
	10	-2.256(*)	.424	.000	-3.695	-.817
	12	1.358	.412	.070	-.041	2.756
	1	-2.335(*)	.508	.000	-4.060	-.610
	2	-1.744	.575	.160	-3.696	.209
	3	-2.152(*)	.501	.002	-3.854	-.451
	4	-3.306(*)	.512	.000	-5.043	-1.569
	5	-3.056(*)	.558	.000	-4.951	-1.162
	6	-3.284(*)	.517	.000	-5.040	-1.528
	7	-3.074(*)	.572	.000	-5.015	-1.133
	8	-2.955(*)	.538	.000	-4.781	-1.128
	9	-3.585(*)	.519	.000	-5.346	-1.824
	10	-3.613(*)	.548	.000	-5.473	-1.754
	11	-1.358	.412	.070	-2.756	.041

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	7.244	.360	6.536	7.953
Medium	7.662	.525	6.630	8.695
High	7.759	.573	6.632	8.885

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Community Level	(J) Total Community Level				Upper Bound	Lower Bound
Low	Medium	-.418	.636	.884	-1.945	1.109
	High	-.514	.676	.831	-2.138	1.109
Medium	Low	.418	.636	.884	-1.109	1.945
	High	-.096	.777	.999	-1.960	1.768
High	Low	.514	.676	.831	-1.109	2.138
	Medium	.096	.777	.999	-1.768	1.960

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	17.380	2	8.690	.390	.678	.002	.113
Error	7089.233	318	22.293				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

Total Community Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	7.40	.497	6.419	8.374
	2	6.26	.587	5.101	7.412
	3	7.43	.476	6.493	8.364
	4	8.41	.424	7.573	9.243
	5	8.76	.486	7.800	9.713
	6	8.24	.451	7.349	9.125
	7	8.03	.530	6.989	9.073
	8	7.65	.523	6.618	8.678
	9	7.58	.524	6.548	8.611
	10	8.53	.567	7.418	9.648
	11	5.56	.508	4.564	6.561
	12	3.10	.585	1.945	4.247
Medium	1	6.81	.724	5.384	8.233
	2	6.75	.856	5.061	8.430
	3	7.25	.693	5.886	8.613
	4	8.72	.618	7.505	9.939
	5	8.41	.708	7.016	9.804
	6	8.92	.658	7.624	10.212
	7	8.39	.772	6.873	9.910
	8	8.22	.763	6.715	9.717
	9	9.42	.764	7.921	10.926

High	10	8.49	.826	6.866	10.117
	11	5.44	.740	3.986	6.897
	12	5.13	.852	3.454	6.808
	1	7.85	.790	6.295	9.404
	2	7.28	.934	5.441	9.117
	3	6.83	.756	5.341	8.317
	4	7.84	.675	6.509	9.165
	5	7.05	.773	5.531	8.573
	6	7.75	.718	6.336	9.161
	7	7.85	.842	6.193	9.508
	8	8.05	.833	6.412	9.688
	9	8.80	.834	7.162	10.443
	10	8.87	.902	7.092	10.640
	11	8.12	.807	6.531	9.707
	12	6.82	.930	4.993	8.654

### ***General Linear Model with Level of Diversity for ROA***

#### **Between-Subjects Factors**

		Value Label	N
Total Diversity Level	1	Low	111
	2	Medium	129
	3	High	81

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1



Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	5107.258	11	464.296	18.040	.000	.054	1.000
	Greenhouse-Geisser	5107.258	6.832	747.600	18.040	.000	.054	1.000
	Huynh-Feldt	5107.258	7.041	725.364	18.040	.000	.054	1.000
	Lower-bound	5107.258	1	5107.258	18.040	.000	.054	.989
year * divtot_lvi	Sphericity Assumed	788.409	22	35.837	1.392	.105	.009	.939
	Greenhouse-Geisser	788.409	13.663	57.704	1.392	.150	.009	.820
	Huynh-Feldt	788.409	14.082	55.987	1.392	.148	.009	.829
	Lower-bound	788.409	2	394.205	1.392	.250	.009	.298
Error(year)	Sphericity Assumed	90028.544	3498	25.737				
	Greenhouse-Geisser	90028.544	2172.429	41.441				
	Huynh-Feldt	90028.544	2239.024	40.209				
	Lower-bound	90028.544	318	283.109				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	402.504	1	402.504	6.395	.012	.020	.713
	Quadratic	3026.293	1	3026.293	52.010	.000	.141	1.000
	Cubic	868.502	1	868.502	32.998	.000	.094	1.000
year * divtot_lvi	Linear	328.584	2	164.292	2.610	.075	.016	.518
	Quadratic	138.322	2	69.161	1.189	.306	.007	.260
	Cubic	102.290	2	51.145	1.943	.145	.012	.402
Error(year)	Linear	20016.313	318	62.944				
	Quadratic	18503.551	318	58.187				
	Cubic	8369.703	318	26.320				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
divtot_lvl	98.455	2	49.228	.184	.832	.001	.078
Error	85180.899	318	267.864				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.402	.371	6.673	8.131
2	6.623	.439	5.760	7.486
3	7.206	.354	6.509	7.902
4	8.331	.317	7.708	8.955
5	8.246	.363	7.532	8.959
6	8.329	.337	7.667	8.992
7	8.131	.395	7.354	8.908
8	7.954	.390	7.187	8.721
9	8.435	.392	7.664	9.206
10	8.611	.423	7.779	9.442
11	6.135	.382	5.383	6.887
12	4.476	.442	3.607	5.345

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.779	.336	.753	-.361	1.919
	3	.196	.297	1.000	-.812	1.205
	4	-.929	.341	.365	-2.088	.230
	5	-.844	.380	.835	-2.133	.445
	6	-.928	.364	.525	-2.161	.306
	7	-.729	.429	.998	-2.186	.727
	8	-.552	.405	1.000	-1.927	.823
	9	-1.033	.440	.725	-2.526	.459
	10	-1.209	.489	.606	-2.869	.452
	11	1.267	.430	.205	-.193	2.726
	12	2.926(*)	.482	.000	1.289	4.562
2	1	-.779	.336	.753	-1.919	.361
	3	-.583	.333	.996	-1.713	.547
	4	-1.708(*)	.384	.001	-3.010	-.406
	5	-1.623(*)	.416	.008	-3.035	-.211
	6	-1.707(*)	.424	.005	-3.147	-.267
	7	-1.509	.511	.199	-3.241	.224
	8	-1.331	.463	.250	-2.904	.242
	9	-1.813(*)	.463	.007	-3.384	-.241
	10	-1.988(*)	.518	.010	-3.747	-.229
	11	.487	.470	1.000	-1.109	2.084
	12	2.146(*)	.542	.006	.306	3.987
3	1	-.196	.297	1.000	-1.205	.812
	2	.583	.333	.996	-.547	1.713
	4	-1.125(*)	.246	.000	-1.960	-.291

4	5	-1.040	.313	.064	-2.103	.023
	6	-1.124(*)	.302	.016	-2.150	-.098
	7	-.926	.389	.695	-2.245	.393
	8	-.748	.382	.969	-2.046	.550
	9	-1.230	.408	.169	-2.615	.156
	10	-1.405	.447	.114	-2.922	.112
	11	1.070	.419	.523	-.352	2.493
	12	2.729(*)	.476	.000	1.114	4.344
	1	.929	.341	.365	-.230	2.088
	2	1.708(*)	.384	.001	.406	3.010
	3	1.125(*)	.246	.000	.291	1.960
	5	.085	.217	1.000	-.651	.821
5	6	.002	.235	1.000	-.797	.800
	7	.200	.333	1.000	-.930	1.330
	8	.377	.341	1.000	-.780	1.534
	9	-.104	.361	1.000	-1.328	1.120
	10	-.279	.388	1.000	-1.598	1.039
	11	2.196(*)	.403	.000	.827	3.565
	12	3.855(*)	.488	.000	2.199	5.510
	1	.844	.380	.835	-.445	2.133
	2	1.623(*)	.416	.008	.211	3.035
	3	1.040	.313	.064	-.023	2.103
	4	-.085	.217	1.000	-.821	.651
	6	-.084	.258	1.000	-.958	.791
6	7	.115	.352	1.000	-1.081	1.311
	8	.292	.358	1.000	-.922	1.507
	9	-.189	.406	1.000	-1.569	1.190
	10	-.365	.410	1.000	-1.757	1.027
	11	2.111(*)	.433	.000	.643	3.579
	12	3.770(*)	.532	.000	1.964	5.575
	1	.928	.364	.525	-.306	2.161
	2	1.707(*)	.424	.005	.267	3.147
	3	1.124(*)	.302	.016	.098	2.150

7	4	-.002	.235	1.000	-.800	.797
	5	.084	.258	1.000	-.791	.958
	7	.198	.269	1.000	-.716	1.112
	8	.376	.302	1.000	-.649	1.400
	9	-.106	.347	1.000	-1.284	1.073
	10	-.281	.388	1.000	-1.599	1.037
	11	2.194(*)	.388	.000	.879	3.510
	12	3.853(*)	.491	.000	2.186	5.520
	1	.729	.429	.998	-.727	2.186
	2	1.509	.511	.199	-.224	3.241
	3	.926	.389	.695	-.393	2.245
	4	-.200	.333	1.000	-1.330	.930
8	5	-.115	.352	1.000	-1.311	1.081
	6	-.198	.269	1.000	-1.112	.716
	8	.178	.334	1.000	-.957	1.312
	9	-.304	.400	1.000	-1.660	1.052
	10	-.479	.418	1.000	-1.900	.941
	11	1.996(*)	.438	.000	.510	3.482
	12	3.655(*)	.543	.000	1.812	5.498
	1	.552	.405	1.000	-.823	1.927
	2	1.331	.463	.250	-.242	2.904
	3	.748	.382	.969	-.550	2.046
	4	-.377	.341	1.000	-1.534	.780
	5	-.292	.358	1.000	-1.507	.922
9	6	-.376	.302	1.000	-1.400	.649
	7	-.178	.334	1.000	-1.312	.957
	9	-.482	.342	1.000	-1.644	.681
	10	-.657	.417	1.000	-2.072	.759
	11	1.818(*)	.416	.001	.405	3.232
	12	3.477(*)	.511	.000	1.743	5.211
	1	1.033	.440	.725	-.459	2.526
	2	1.813(*)	.463	.007	.241	3.384
	3	1.230	.408	.169	-.156	2.615

10	4	.104	.361	1.000	-1.120	1.328
	5	.189	.406	1.000	-1.190	1.569
	6	.106	.347	1.000	-1.073	1.284
	7	.304	.400	1.000	-1.052	1.660
	8	.482	.342	1.000	-.681	1.644
	10	-.175	.419	1.000	-1.598	1.247
	11	2.300(*)	.418	.000	.883	3.717
	12	3.959(*)	.489	.000	2.298	5.620
	1	1.209	.489	.606	-.452	2.869
	2	1.988(*)	.518	.010	.229	3.747
11	3	1.405	.447	.114	-.112	2.922
	4	.279	.388	1.000	-1.039	1.598
	5	.365	.410	1.000	-1.027	1.757
	6	.281	.388	1.000	-1.037	1.599
	7	.479	.418	1.000	-.941	1.900
	8	.657	.417	1.000	-.759	2.072
	9	.175	.419	1.000	-1.247	1.598
	11	2.475(*)	.402	.000	1.112	3.838
	12	4.134(*)	.520	.000	2.371	5.898
	1	-1.267	.430	.205	-2.726	.193
12	2	-.487	.470	1.000	-2.084	1.109
	3	-1.070	.419	.523	-2.493	.352
	4	-2.196(*)	.403	.000	-3.565	-.827
	5	-2.111(*)	.433	.000	-3.579	-.643
	6	-2.194(*)	.388	.000	-3.510	-.879
	7	-1.996(*)	.438	.000	-3.482	-.510
	8	-1.818(*)	.416	.001	-3.232	-.405
	9	-2.300(*)	.418	.000	-3.717	-.883
	10	-2.475(*)	.402	.000	-3.838	-1.112
	12	1.659(*)	.391	.002	.333	2.985
	1	-2.926(*)	.482	.000	-4.562	-1.289
	2	-2.146(*)	.542	.006	-3.987	-.306
	3	-2.729(*)	.476	.000	-4.344	-1.114

4	-3.855(*)	.488	.000	-5.510	-2.199
5	-3.770(*)	.532	.000	-5.575	-1.964
6	-3.853(*)	.491	.000	-5.520	-2.186
7	-3.655(*)	.543	.000	-5.498	-1.812
8	-3.477(*)	.511	.000	-5.211	-1.743
9	-3.959(*)	.489	.000	-5.620	-2.298
10	-4.134(*)	.520	.000	-5.898	-2.371
11	-1.659(*)	.391	.002	-2.985	-.333

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Diversity Level

### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	7.451	.448	6.569	8.333
Medium	7.306	.416	6.488	8.125
High	7.712	.525	6.679	8.745

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.145	.612	.993	-1.324	1.613
	High	-.261	.690	.974	-1.919	1.396
Medium	Low	-.145	.612	.993	-1.613	1.324

High	High	-.406	.670	.906	-2.014	1.202
	Low	.261	.690	.974	-1.396	1.919
	Medium	.406	.670	.906	-1.202	2.014

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	8.205	2	4.102	.184	.832	.001	.078
Error	7098.408	318	22.322				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Diversity Level \* year

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	7.53	.619	6.315	8.749
	2	6.70	.732	5.261	8.141
	3	7.84	.591	6.677	9.001
	4	8.42	.529	7.384	9.465
	5	9.15	.605	7.956	10.338
	6	8.76	.562	7.650	9.862
	7	8.12	.659	6.824	9.418
	8	7.53	.651	6.245	8.805
	9	8.17	.654	6.880	9.453
	10	8.51	.706	7.125	9.902
	11	5.46	.638	4.206	6.717
	12	3.22	.737	1.774	4.675
Medium	1	6.93	.574	5.806	8.063



High	2	6.40	.679	5.063	7.735
	3	7.15	.548	6.071	8.227
	4	8.51	.491	7.542	9.472
	5	8.10	.562	6.994	9.203
	6	7.90	.521	6.875	8.926
	7	7.82	.611	6.616	9.022
	8	7.71	.604	6.519	8.894
	9	7.72	.607	6.531	8.918
	10	8.55	.655	7.266	9.842
	11	6.14	.592	4.979	7.308
	12	4.74	.684	3.396	6.087
	1	7.74	.724	6.315	9.164
	2	6.77	.857	5.082	8.455
	3	6.63	.691	5.269	7.989
	4	8.06	.619	6.843	9.279
	5	7.49	.709	6.098	8.887
	6	8.33	.658	7.037	9.626
	7	8.45	.772	6.935	9.972
	8	8.63	.762	7.131	10.128
	9	9.41	.765	7.909	10.920
	10	8.76	.826	7.138	10.389
	11	6.80	.747	5.331	8.271
	12	5.46	.863	3.765	7.161

### ***General Linear Model with Level of Employee Relations for ROA***

#### **Between-Subjects Factors**

		Value Label	N
Total Emp	1	Low	146

Relations	2	Medium	102
Level	3	High	73

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	5553.771	11	504.888	19.538	.000	.058	1.000
	Greenhouse-Geisser	5553.771	6.819	814.499	19.538	.000	.058	1.000
	Huynh-Feldt	5553.771	7.027	790.308	19.538	.000	.058	1.000
	Lower-bound	5553.771	1	5553.771	19.538	.000	.058	.993
year * emptot_ivl	Sphericity Assumed	422.813	22	19.219	.744	.797	.005	.636
	Greenhouse-Geisser	422.813	13.637	31.004	.744	.727	.005	.483
	Huynh-Feldt	422.813	14.055	30.083	.744	.732	.005	.492
	Lower-bound	422.813	2	211.407	.744	.476	.005	.176
Error(year)	Sphericity Assumed	90394.140	3498	25.842				
	Greenhouse-Geisser	90394.140	2168.325	41.688				
	Huynh-Feldt	90394.140	2234.698	40.450				
	Lower-bound	90394.140	318	284.258				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	383.588	1	383.588	6.008	.015	.019	.686
	Quadratic	3423.478	1	3423.478	59.017	.000	.157	1.000
	Cubic	757.389	1	757.389	28.495	.000	.082	1.000

year * emptot_lvl	Linear	43.400	2	21.700	.340	.712	.002	.104
	Quadratic	195.300	2	97.650	1.683	.187	.010	.353
	Cubic	19.756	2	9.878	.372	.690	.002	.110
	Linear	20301.497	318	63.841				
	Quadratic	18446.573	318	58.008				
	Cubic	8452.237	318	26.579				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	2732.050	2	1366.025	5.262	.006	.032	.832
Error	82547.304	318	259.583				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.470	.377	6.728	8.213
2	6.648	.447	5.768	7.527
3	7.365	.361	6.653	8.076
4	8.668	.317	8.044	9.292

5	8.632	.366	7.911	9.353
6	8.571	.339	7.903	9.239
7	8.366	.399	7.582	9.151
8	8.121	.395	7.344	8.898
9	8.565	.398	7.783	9.348
10	8.898	.426	8.060	9.735
11	6.286	.389	5.521	7.051
12	4.523	.453	3.632	5.413

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.823	.343	.677	-.340	1.986
	3	.106	.305	1.000	-.931	1.142
	4	-1.197(*)	.348	.043	-2.379	-.016
	5	-1.162	.388	.177	-2.477	.154
	6	-1.101	.370	.190	-2.358	.156
	7	-.896	.437	.938	-2.380	.588
	8	-.651	.414	1.000	-2.055	.754
	9	-1.095	.449	.638	-2.618	.428
	10	-1.427	.499	.256	-3.119	.265
	11	1.185	.440	.391	-.309	2.678
	12	2.948(*)	.496	.000	1.265	4.631
	2	-.823	.343	.677	-1.986	.340
2	3	-.717	.341	.912	-1.874	.440
	4	-2.020(*)	.389	.000	-3.340	-.700
	5	-1.984(*)	.423	.000	-3.418	-.551
	6	-1.924(*)	.431	.001	-3.387	-.460
	7	-1.719	.519	.066	-3.481	.043
	1	.823	.343	.677	1.986	-.340

3	8	-1.473	.472	.122	-3.076	.129
	9	-1.918(*)	.472	.004	-3.520	-.315
	10	-2.250(*)	.527	.002	-4.038	-.462
	11	.362	.480	1.000	-1.268	1.992
	12	2.125(*)	.556	.011	.237	4.013
	1	-.106	.305	1.000	-1.142	.931
	2	.717	.341	.912	-.440	1.874
	4	-1.303(*)	.249	.000	-2.147	-.459
	5	-1.267(*)	.317	.005	-2.343	-.192
	6	-1.206(*)	.308	.007	-2.250	-.163
	7	-1.002	.397	.551	-2.348	.345
	8	-.756	.393	.976	-2.089	.577
4	9	-1.200	.420	.258	-2.625	.224
	10	-1.533	.455	.055	-3.078	.012
	11	1.079	.431	.575	-.385	2.543
	12	2.842(*)	.492	.000	1.171	4.513
	1	1.197(*)	.348	.043	.016	2.379
	2	2.020(*)	.389	.000	.700	3.340
	3	1.303(*)	.249	.000	.459	2.147
	5	.036	.223	1.000	-.722	.793
	6	.097	.242	1.000	-.723	.916
	7	.301	.341	1.000	-.856	1.458
	8	.547	.350	1.000	-.640	1.734
	9	.103	.372	1.000	-1.159	1.364
5	10	-.230	.397	1.000	-1.576	1.116
	11	2.382(*)	.413	.000	.979	3.785
	12	4.145(*)	.500	.000	2.447	5.843
	1	1.162	.388	.177	-.154	2.477
	2	1.984(*)	.423	.000	.551	3.418
	3	1.267(*)	.317	.005	.192	2.343
	4	-.036	.223	1.000	-.793	.722
	6	.061	.263	1.000	-.833	.955
	7	.265	.362	1.000	-.963	1.494

6	8	.511	.369	1.000	-.743	1.765
	9	.067	.420	1.000	-1.358	1.491
	10	-.266	.420	1.000	-1.690	1.159
	11	2.346(*)	.446	.000	.832	3.860
	12	4.109(*)	.549	.000	2.246	5.973
	1	1.101	.370	.190	-.156	2.358
	2	1.924(*)	.431	.001	.460	3.387
	3	1.206(*)	.308	.007	.163	2.250
	4	-.097	.242	1.000	-.916	.723
	5	-.061	.263	1.000	-.955	.833
	7	.205	.276	1.000	-.731	1.140
	8	.450	.310	1.000	-.603	1.504
7	9	.006	.357	1.000	-1.205	1.217
	10	-.326	.397	1.000	-1.674	1.021
	11	2.285(*)	.398	.000	.934	3.637
	12	4.049(*)	.506	.000	2.333	5.764
	1	.896	.437	.938	-.588	2.380
	2	1.719	.519	.066	-.043	3.481
	3	1.002	.397	.551	-.345	2.348
	4	-.301	.341	1.000	-1.458	.856
	5	-.265	.362	1.000	-1.494	.963
	6	-.205	.276	1.000	-1.140	.731
	8	.246	.342	1.000	-.914	1.406
	9	-.199	.409	1.000	-1.586	1.189
8	10	-.531	.427	1.000	-1.981	.919
	11	2.081(*)	.448	.000	.561	3.600
	12	3.844(*)	.556	.000	1.957	5.731
	1	.651	.414	1.000	-.754	2.055
	2	1.473	.472	.122	-.129	3.076
	3	.756	.393	.976	-.577	2.089
	4	-.547	.350	1.000	-1.734	.640
	5	-.511	.369	1.000	-1.765	.743
	6	-.450	.310	1.000	-1.504	.603

9	7	-.246	.342	1.000	-1.406	.914
	9	-.444	.350	1.000	-1.633	.744
	10	-.777	.426	.991	-2.223	.669
	11	1.835(*)	.425	.001	.392	3.278
	12	3.598(*)	.522	.000	1.826	5.371
	1	1.095	.449	.638	-.428	2.618
	2	1.918(*)	.472	.004	.315	3.520
	3	1.200	.420	.258	-.224	2.625
	4	-.103	.372	1.000	-1.364	1.159
	5	-.067	.420	1.000	-1.491	1.358
	6	-.006	.357	1.000	-1.217	1.205
	7	.199	.409	1.000	-1.189	1.586
10	8	.444	.350	1.000	-.744	1.633
	10	-.332	.429	1.000	-1.789	1.124
	11	2.279(*)	.427	.000	.829	3.729
	12	4.043(*)	.501	.000	2.341	5.744
	1	1.427	.499	.256	-.265	3.119
	2	2.250(*)	.527	.002	.462	4.038
	3	1.533	.455	.055	-.012	3.078
	4	.230	.397	1.000	-1.116	1.576
	5	.266	.420	1.000	-1.159	1.690
	6	.326	.397	1.000	-1.021	1.674
	7	.531	.427	1.000	-.919	1.981
	8	.777	.426	.991	-.669	2.223
11	9	.332	.429	1.000	-1.124	1.789
	11	2.612(*)	.410	.000	1.220	4.003
	12	4.375(*)	.531	.000	2.571	6.179
	1	-1.185	.440	.391	-2.678	.309
	2	-.362	.480	1.000	-1.992	1.268
	3	-1.079	.431	.575	-2.543	.385
	4	-2.382(*)	.413	.000	-3.785	-.979
	5	-2.346(*)	.446	.000	-3.860	-.832
	6	-2.285(*)	.398	.000	-3.637	-.934

12	7	-2.081(*)	.448	.000	-3.600	-.561
	8	-1.835(*)	.425	.001	-3.278	-.392
	9	-2.279(*)	.427	.000	-3.729	-.829
	10	-2.612(*)	.410	.000	-4.003	-1.220
	12	1.763(*)	.399	.001	.409	3.118
	1	-2.948(*)	.496	.000	-4.631	-1.265
	2	-2.125(*)	.556	.011	-4.013	-.237
	3	-2.842(*)	.492	.000	-4.513	-1.171
	4	-4.145(*)	.500	.000	-5.843	-2.447
	5	-4.109(*)	.549	.000	-5.973	-2.246
	6	-4.049(*)	.506	.000	-5.764	-2.333
	7	-3.844(*)	.556	.000	-5.731	-1.957
	8	-3.598(*)	.522	.000	-5.371	-1.826
	9	-4.043(*)	.501	.000	-5.744	-2.341
	10	-4.375(*)	.531	.000	-6.179	-2.571
	11	-1.763(*)	.399	.001	-3.118	-.409

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp Relations Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	6.971	.385	6.214	7.729
Medium	7.046	.461	6.140	7.952
High	9.010	.544	7.939	10.081

### Pairwise Comparisons



Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-.075	.600	.999	-1.516	1.366
	High	-2.039(*)	.667	.007	-3.639	-.438
Medium	Low	.075	.600	.999	-1.366	1.516
	High	-1.964(*)	.713	.019	-3.675	-.252
High	Low	2.039(*)	.667	.007	.438	3.639
	Medium	1.964(*)	.713	.019	.252	3.675

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	227.671	2	113.835	5.262	.006	.032	.832
Error	6878.942	318	21.632				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	7.16	.538	6.105	8.221
	2	6.67	.637	5.419	7.927

Medium	3	7.04	.515	6.028	8.055
	4	7.59	.452	6.704	8.483
	5	7.30	.522	6.272	8.327
	6	7.70	.484	6.752	8.655
	7	7.38	.569	6.260	8.497
	8	7.36	.563	6.251	8.466
	9	7.70	.567	6.583	8.813
	10	7.97	.607	6.772	9.160
	11	5.55	.554	4.459	6.639
	12	4.23	.645	2.964	5.503
	1	6.85	.644	5.581	8.113
	2	6.02	.763	4.520	7.520
	3	6.98	.616	5.767	8.192
	4	8.03	.541	6.971	9.099
	5	8.40	.625	7.172	9.631
	6	7.81	.579	6.673	8.949
	7	7.72	.680	6.385	9.062
	8	7.34	.673	6.012	8.661
	9	7.86	.678	6.522	9.191
	10	7.87	.726	6.443	9.300
	11	5.79	.663	4.487	7.096
	12	3.88	.772	2.364	5.402
High	1	8.40	.761	6.904	9.897
	2	7.25	.901	5.477	9.024
	3	8.07	.729	6.639	9.506
	4	10.37	.639	9.117	11.633
	5	10.19	.739	8.742	11.648
	6	10.20	.684	8.853	11.544
	7	10.00	.804	8.416	11.579
	8	9.67	.796	8.101	11.233
	9	10.14	.802	8.564	11.718
	10	10.85	.858	9.166	12.543

11	7.52	.784	5.975	9.059
12	5.45	.913	3.656	7.247

### ***General Linear Model with Level of Environment for ROA***

#### **Between-Subjects Factors**

	Value Label	N
Total Environment Level	1 Low	82
	2 Medium	157
	3 High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	4740.008	11	430.910	16.696	.000	.050	1.000
	Greenhouse-Geisser	4740.008	6.807	696.357	16.696	.000	.050	1.000
	Huynh-Feldt	4740.008	7.015	675.701	16.696	.000	.050	1.000
	Lower-bound	4740.008	1	4740.008	16.696	.000	.050	.983
year * envtot_lv1	Sphericity Assumed	536.214	22	24.373	.944	.535	.006	.773
	Greenhouse-Geisser	536.214	13.614	39.388	.944	.508	.006	.609
	Huynh-Feldt	536.214	14.030	38.219	.944	.510	.006	.619
	Lower-bound	536.214	2	268.107	.944	.390	.006	.213
Error(year)	Sphericity Assumed	90280.739	3498	25.809				
	Greenhouse-Geisser	90280.739	2164.582	41.708				

Huynh-Feldt	90280.739	2230.753	40.471				
Lower-bound	90280.739	318	283.902				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	280.015	1	280.015	4.430	.036	.014	.555
	Quadratic	2871.619	1	2871.619	49.011	.000	.134	1.000
	Cubic	709.558	1	709.558	26.637	.000	.077	.999
year * envtot_lvl	Linear	244.726	2	122.363	1.936	.146	.012	.400
	Quadratic	10.007	2	5.003	.085	.918	.001	.063
	Cubic	1.238	2	.619	.023	.977	.000	.053
Error(year)	Linear	20100.171	318	63.208				
	Quadratic	18631.867	318	58.591				
	Cubic	8470.755	318	26.638				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	2418.360	2	1209.180	4.641	.010	.028	.780
Error	82860.993	318	260.569				

a. Computed using alpha = .05

## Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.056	.377	6.313	7.798
2	6.217	.443	5.346	7.087
3	6.892	.358	6.187	7.596
4	8.118	.322	7.485	8.751
5	8.104	.373	7.371	8.837
6	8.075	.344	7.398	8.753
7	7.837	.403	7.044	8.630
8	7.574	.398	6.792	8.356
9	8.163	.404	7.369	8.957
10	8.355	.432	7.505	9.204
11	6.068	.394	5.293	6.843
12	4.265	.456	3.367	5.163

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.839	.343	.630	-.325	2.003
	3	.164	.307	1.000	-.878	1.206
	4	-1.063	.352	.166	-2.257	.132
	5	-1.048	.392	.410	-2.380	.284
	6	-1.020	.374	.360	-2.288	.249
	7	-.781	.441	.995	-2.279	.716

2	8	-.518	.417	1.000	-1.934	.897
	9	-1.107	.452	.627	-2.640	.426
	10	-1.299	.503	.494	-3.006	.409
	11	.988	.440	.819	-.506	2.482
	12	2.790(*)	.498	.000	1.099	4.482
	1	-.839	.343	.630	-2.003	.325
	3	-.675	.342	.964	-1.835	.485
	4	-1.902(*)	.393	.000	-3.236	-.568
	5	-1.887(*)	.427	.001	-3.335	-.439
	6	-1.859(*)	.433	.002	-3.329	-.389
	7	-1.620	.523	.132	-3.397	.156
	8	-1.358	.475	.258	-2.968	.253
3	9	-1.946(*)	.474	.003	-3.554	-.338
	10	-2.138(*)	.532	.005	-3.942	-.334
	11	.149	.478	1.000	-1.473	1.770
	12	1.951(*)	.557	.034	.061	3.842
	1	-.164	.307	1.000	-1.206	.878
	2	.675	.342	.964	-.485	1.835
	4	-1.227(*)	.253	.000	-2.084	-.369
	5	-1.212(*)	.321	.012	-2.301	-.124
	6	-1.184(*)	.310	.011	-2.237	-.131
	7	-.945	.400	.715	-2.304	.414
	8	-.682	.396	.997	-2.027	.662
	9	-1.271	.422	.168	-2.702	.160
4	10	-1.463	.460	.101	-3.024	.098
	11	.824	.429	.978	-.634	2.281
	12	2.626(*)	.494	.000	.951	4.302
	1	1.063	.352	.166	-.132	2.257
	2	1.902(*)	.393	.000	.568	3.236
	3	1.227(*)	.253	.000	.369	2.084
	5	.014	.225	1.000	-.750	.778
	6	.043	.243	1.000	-.781	.867
	7	.281	.343	1.000	-.884	1.446

5	8	.544	.352	1.000	-.650	1.738
	9	-.044	.374	1.000	-1.312	1.224
	10	-.236	.400	1.000	-1.593	1.120
	11	2.050(*)	.414	.000	.646	3.454
	12	3.853(*)	.504	.000	2.141	5.565
	1	1.048	.392	.410	-.284	2.380
	2	1.887(*)	.427	.001	.439	3.335
	3	1.212(*)	.321	.012	.124	2.301
	4	-.014	.225	1.000	-.778	.750
	6	.029	.266	1.000	-.875	.932
	7	.267	.365	1.000	-.971	1.505
	8	.530	.372	1.000	-.734	1.794
6	9	-.059	.423	1.000	-1.495	1.377
	10	-.251	.424	1.000	-1.689	1.188
	11	2.036(*)	.448	.001	.515	3.557
	12	3.839(*)	.554	.000	1.957	5.720
	1	1.020	.374	.360	-.249	2.288
	2	1.859(*)	.433	.002	.389	3.329
	3	1.184(*)	.310	.011	.131	2.237
	4	-.043	.243	1.000	-.867	.781
	5	-.029	.266	1.000	-.932	.875
	7	.238	.277	1.000	-.702	1.179
	8	.501	.312	1.000	-.558	1.561
	9	-.087	.359	1.000	-1.304	1.130
7	10	-.279	.399	1.000	-1.635	1.076
	11	2.007(*)	.399	.000	.654	3.361
	12	3.810(*)	.509	.000	2.081	5.539
	1	.781	.441	.995	-.716	2.279
	2	1.620	.523	.132	-.156	3.397
	3	.945	.400	.715	-.414	2.304
	4	-.281	.343	1.000	-1.446	.884
	5	-.267	.365	1.000	-1.505	.971
	6	-.238	.277	1.000	-1.179	.702

8	8	.263	.344	1.000	-.904	1.429
	9	-.326	.411	1.000	-1.721	1.070
	10	-.518	.430	1.000	-1.978	.943
	11	1.769(*)	.448	.006	.247	3.291
	12	3.572(*)	.560	.000	1.670	5.473
	1	.518	.417	1.000	-.897	1.934
	2	1.358	.475	.258	-.253	2.968
	3	.682	.396	.997	-.662	2.027
	4	-.544	.352	1.000	-1.738	.650
	5	-.530	.372	1.000	-1.794	.734
	6	-.501	.312	1.000	-1.561	.558
	7	-.263	.344	1.000	-1.429	.904
9	9	-.588	.351	.999	-1.780	.603
	10	-.781	.429	.991	-2.235	.674
	11	1.506(*)	.425	.029	.065	2.947
	12	3.309(*)	.525	.000	1.526	5.092
	1	1.107	.452	.627	-.426	2.640
	2	1.946(*)	.474	.003	.338	3.554
	3	1.271	.422	.168	-.160	2.702
	4	.044	.374	1.000	-1.224	1.312
	5	.059	.423	1.000	-1.377	1.495
	6	.087	.359	1.000	-1.130	1.304
	7	.326	.411	1.000	-1.070	1.721
	8	.588	.351	.999	-.603	1.780
10	10	-.192	.432	1.000	-1.657	1.273
	11	2.095(*)	.430	.000	.637	3.552
	12	3.897(*)	.505	.000	2.182	5.613
	1	1.299	.503	.494	-.409	3.006
	2	2.138(*)	.532	.005	.334	3.942
	3	1.463	.460	.101	-.098	3.024
	4	.236	.400	1.000	-1.120	1.593
	5	.251	.424	1.000	-1.188	1.689
	6	.279	.399	1.000	-1.076	1.635



11	7	.518	.430	1.000	-.943	1.978
	8	.781	.429	.991	-.674	2.235
	9	.192	.432	1.000	-1.273	1.657
	11	2.287(*)	.411	.000	.892	3.682
	12	4.089(*)	.536	.000	2.271	5.908
	1	-.988	.440	.819	-2.482	.506
	2	-.149	.478	1.000	-1.770	1.473
	3	-.824	.429	.978	-2.281	.634
	4	-2.050(*)	.414	.000	-3.454	-.646
	5	-2.036(*)	.448	.001	-3.557	-.515
	6	-2.007(*)	.399	.000	-3.361	-.654
12	7	-1.769(*)	.448	.006	-3.291	-.247
	8	-1.506(*)	.425	.029	-2.947	-.065
	9	-2.095(*)	.430	.000	-3.552	-.637
	10	-2.287(*)	.411	.000	-3.682	-.892
	12	1.803(*)	.402	.001	.440	3.165
	1	-2.790(*)	.498	.000	-4.482	-1.099
	2	-1.951(*)	.557	.034	-3.842	-.061
	3	-2.626(*)	.494	.000	-4.302	-.951
	4	-3.853(*)	.504	.000	-5.565	-2.141
	5	-3.839(*)	.554	.000	-5.720	-1.957
	6	-3.810(*)	.509	.000	-5.539	-2.081
	7	-3.572(*)	.560	.000	-5.473	-1.670
	8	-3.309(*)	.525	.000	-5.092	-1.526
	9	-3.897(*)	.505	.000	-5.613	-2.182
	10	-4.089(*)	.536	.000	-5.908	-2.271
	11	-1.803(*)	.402	.001	-3.165	-.440

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	6.351	.515	5.338	7.363
Medium	8.220	.372	7.488	8.951
High	7.110	.515	6.098	8.123

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-1.869(*)	.635	.010	-3.393	-.345
	High	-.759	.728	.653	-2.506	.987
Medium	Low	1.869(*)	.635	.010	.345	3.393
	High	1.109	.635	.225	-.415	2.634
High	Low	.759	.728	.653	-.987	2.506
	Medium	-1.109	.635	.225	-2.634	.415

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	201.530	2	100.765	4.641	.010	.028	.780
Error	6905.083	318	21.714				

The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

Total Environment Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	6.17	.713	4.769	7.574
	2	4.25	.836	2.600	5.890
	3	5.72	.676	4.389	7.050
	4	7.08	.608	5.887	8.279
	5	7.36	.704	5.976	8.746
	6	7.48	.650	6.198	8.756
	7	6.86	.762	5.366	8.362
	8	6.84	.751	5.359	8.314
	9	7.53	.762	6.035	9.035
	10	7.31	.816	5.703	8.912
	11	5.88	.744	4.413	7.343
	12	3.73	.862	2.034	5.426
Medium	1	8.29	.515	7.276	9.304
	2	7.84	.604	6.654	9.032
	3	8.45	.489	7.491	9.414
	4	9.18	.439	8.315	10.044
	5	8.98	.509	7.977	9.978
	6	9.06	.470	8.135	9.983
	7	8.89	.550	7.810	9.976
	8	8.87	.543	7.801	9.937
	9	8.77	.551	7.684	9.851
	10	9.38	.589	8.216	10.535
	11	6.09	.538	5.033	7.150
	12	4.84	.623	3.612	6.063
High	1	6.71	.713	5.303	8.108
	2	6.56	.836	4.916	8.206

3	6.50	.676	5.172	7.833
4	8.09	.608	6.896	9.288
5	7.97	.704	6.588	9.358
6	7.69	.650	6.411	8.969
7	7.75	.762	6.256	9.252
8	7.02	.751	5.539	8.494
9	8.19	.762	6.685	9.685
10	8.38	.816	6.776	9.986
11	6.23	.744	4.770	7.699
12	4.23	.862	2.532	5.924

### ***General Linear Model with Level of Product for ROA***

#### **Between-Subjects Factors**

		Value Label	N
Total Product Level	1	Low	76
	2	Medium	160
	3	High	85

#### **Descriptive Statistics**

	Total Product Level	Mean	Std. Deviation	N
tf.Return On Assets[y1991]	Low	7.4409324	7.39255246	76
	Medium	7.1944709	5.78674794	160
	High	7.5390927	6.99747602	85
	Total	7.3440781	6.50568075	321
tf.Return On Assets[y1992]	Low	6.0643725	8.24018767	76
	Medium	6.5598623	7.71109825	160
	High	7.1414362	7.18138721	85

tf.Return On Assets[y1993]	Total	6.5965494	7.69047867	321
	Low	7.3740646	7.77146297	76
	Medium	7.0438009	5.44110410	160
	High	7.5512934	6.10642074	85
tf.Return On Assets[y1994]	Total	7.2563769	6.22114954	321
	Low	7.7388779	7.34870301	76
	Medium	7.8454335	4.64423988	160
	High	9.9072924	5.03304308	85
	Total	8.3661805	5.55729901	321
tf.Return On Assets[y1995]	Low	7.6200222	8.02038919	76
	Medium	7.7651328	5.46950900	160
	High	9.9452584	6.15226767	85
	Total	8.3080682	6.39127274	321
tf.Return On Assets[y1996]	Low	7.9786650	7.83608080	76
	Medium	7.9164467	4.85614508	160
	High	9.3289107	5.69263740	85
	Total	8.3051945	5.91564402	321
tf.Return On Assets[y1997]	Low	7.4009089	7.69205399	76
	Medium	7.9007399	5.87019585	160
	High	9.0384698	7.96094114	85
	Total	8.0836679	6.92786379	321
tf.Return On Assets[y1998]	Low	7.3544612	7.89935496	76
	Medium	7.6013934	6.65571454	160
	High	8.8617015	6.14382398	85
	Total	7.8766561	6.84869722	321
tf.Return On Assets[y1999]	Low	8.6931284	7.86265108	76
	Medium	7.8023153	5.81127019	160
	High	8.9000018	7.82934691	85
	Total	8.3038890	6.90045813	321
tf.Return On Assets[y2000]	Low	7.7928132	6.81031824	76
	Medium	8.0095020	7.58523467	160
	High	10.407246	7.37744973	85

		7		
tf.Return On Assets[y2001]	Total	8.5931155	7.41229664	321
	Low	6.2948904	6.82684341	76
	Medium	5.7513579	5.83593338	160
	High	6.4820375	8.10039245	85
tf.Return On Assets[y2002]	Total	6.0735269	6.72145935	321
	Low	4.4735787	6.81939303	76
	Medium	3.9674043	8.15281689	160
	High	5.1448428	7.95213705	85
	Total	4.3990290	7.79536394	321

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	4955.289	11	450.481	17.442	.000	.052	1.000
	Greenhouse-Geisser	4955.289	6.798	728.945	17.442	.000	.052	1.000
	Huynh-Feldt	4955.289	7.005	707.344	17.442	.000	.052	1.000
	Lower-bound	4955.289	1	4955.289	17.442	.000	.052	.986
year * protot_lvi	Sphericity Assumed	473.378	22	21.517	.833	.686	.005	.702
	Greenhouse-Geisser	473.378	13.596	34.818	.833	.630	.005	.540
	Huynh-Feldt	473.378	14.011	33.786	.833	.633	.005	.550
	Lower-bound	473.378	2	236.689	.833	.436	.005	.192
Error(year)	Sphericity Assumed	90343.575	3498	25.827				
	Greenhouse-Geisser	90343.575	2161.730	41.792				
	Huynh-Feldt	90343.575	2227.746	40.554				
	Lower-bound	90343.575	318	284.099				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	375.561	1	375.561	5.879	.016	.018	.676
	Quadratic	2959.914	1	2959.914	50.811	.000	.138	1.000
	Cubic	684.485	1	684.485	25.729	.000	.075	.999
year * protot_lvl	Linear	29.425	2	14.713	.230	.794	.001	.086
	Quadratic	117.458	2	58.729	1.008	.366	.006	.225
	Cubic	12.112	2	6.056	.228	.797	.001	.086
Error(year)	Linear	20315.472	318	63.885				
	Quadratic	18524.416	318	58.253				
	Cubic	8459.881	318	26.603				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_lvl	1114.821	2	557.410	2.106	.123	.013	.431
Error	84164.533	318	264.668				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound

1	7.391	.384	6.636	8.147
2	6.589	.453	5.696	7.481
3	7.323	.367	6.601	8.045
4	8.497	.323	7.861	9.134
5	8.443	.373	7.710	9.177
6	8.408	.347	7.725	9.091
7	8.113	.407	7.312	8.915
8	7.939	.403	7.147	8.732
9	8.465	.406	7.666	9.264
10	8.737	.433	7.885	9.588
11	6.176	.396	5.396	6.956
12	4.529	.459	3.625	5.432

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.803	.347	.759	-.375	1.981
	3	.068	.310	1.000	-.982	1.119
	4	-1.106	.351	.112	-2.298	.086
	5	-1.052	.392	.398	-2.382	.278
	6	-1.017	.375	.377	-2.290	.257
	7	-.722	.443	.999	-2.226	.782
	8	-.548	.419	1.000	-1.969	.874
	9	-1.074	.455	.717	-2.619	.471
	10	-1.345	.503	.408	-3.053	.363
	11	1.215	.446	.363	-.299	2.730
	12	2.863(*)	.502	.000	1.159	4.567
2	1	-.803	.347	.759	-1.981	.375
	3	-.734	.345	.899	-1.906	.437



3	4	-1.909(*)	.396	.000	-3.252	-.565
	5	-1.855(*)	.431	.001	-3.316	-.394
	6	-1.819(*)	.439	.003	-3.309	-.330
	7	-1.525	.528	.241	-3.317	.268
	8	-1.351	.480	.291	-2.979	.278
	9	-1.877(*)	.479	.007	-3.503	-.250
	10	-2.148(*)	.535	.005	-3.962	-.334
	11	.412	.487	1.000	-1.241	2.066
	12	2.060(*)	.563	.020	.148	3.972
	1	-.068	.310	1.000	-1.119	.982
	2	.734	.345	.899	-.437	1.906
	4	-1.174(*)	.251	.000	-2.027	-.321
4	5	-1.120(*)	.321	.035	-2.208	-.032
	6	-1.085(*)	.313	.038	-2.146	-.024
	7	-.790	.403	.967	-2.157	.576
	8	-.616	.398	1.000	-1.968	.736
	9	-1.142	.426	.402	-2.589	.305
	10	-1.413	.460	.142	-2.976	.149
	11	1.147	.438	.457	-.338	2.632
	12	2.794(*)	.499	.000	1.102	4.487
	1	1.106	.351	.112	-.086	2.298
	2	1.909(*)	.396	.000	.565	3.252
	3	1.174(*)	.251	.000	.321	2.027
	5	.054	.227	1.000	-.716	.824
5	6	.089	.244	1.000	-.740	.918
	7	.384	.345	1.000	-.786	1.554
	8	.558	.354	1.000	-.644	1.760
	9	.032	.374	1.000	-1.239	1.303
	10	-.239	.402	1.000	-1.604	1.125
	11	2.321(*)	.417	.000	.906	3.737
	12	3.969(*)	.507	.000	2.247	5.691
	1	1.052	.392	.398	-.278	2.382
	2	1.855(*)	.431	.001	.394	3.316

6	3	1.120(*)	.321	.035	.032	2.208
	4	-.054	.227	1.000	-.824	.716
	6	.035	.267	1.000	-.871	.942
	7	.330	.367	1.000	-.914	1.574
	8	.504	.375	1.000	-.768	1.776
	9	-.022	.424	1.000	-1.460	1.417
	10	-.293	.427	1.000	-1.741	1.155
	11	2.267(*)	.451	.000	.738	3.796
	12	3.915(*)	.557	.000	2.024	5.806
	1	1.017	.375	.377	-.257	2.290
	2	1.819(*)	.439	.003	.330	3.309
	3	1.085(*)	.313	.038	.024	2.146
7	4	-.089	.244	1.000	-.918	.740
	5	-.035	.267	1.000	-.942	.871
	7	.295	.279	1.000	-.652	1.242
	8	.469	.315	1.000	-.599	1.536
	9	-.057	.361	1.000	-1.281	1.167
	10	-.329	.401	1.000	-1.691	1.034
	11	2.232(*)	.403	.000	.864	3.600
	12	3.879(*)	.513	.000	2.138	5.621
	1	.722	.443	.999	-.782	2.226
	2	1.525	.528	.241	-.268	3.317
	3	.790	.403	.967	-.576	2.157
	4	-.384	.345	1.000	-1.554	.786
8	5	-.330	.367	1.000	-1.574	.914
	6	-.295	.279	1.000	-1.242	.652
	8	.174	.346	1.000	-1.002	1.350
	9	-.352	.413	1.000	-1.753	1.050
	10	-.623	.432	1.000	-2.090	.843
	11	1.937(*)	.453	.002	.400	3.474
	12	3.585(*)	.564	.000	1.671	5.499
	1	.548	.419	1.000	-.874	1.969
	2	1.351	.480	.291	-.278	2.979

9	3	.616	.398	1.000	-.736	1.968
	4	-.558	.354	1.000	-1.760	.644
	5	-.504	.375	1.000	-1.776	.768
	6	-.469	.315	1.000	-1.536	.599
	7	-.174	.346	1.000	-1.350	1.002
	9	-.526	.354	1.000	-1.726	.674
	10	-.797	.431	.988	-2.260	.666
	11	1.763(*)	.430	.003	.303	3.223
	12	3.411(*)	.530	.000	1.613	5.208
	1	1.074	.455	.717	-.471	2.619
	2	1.877(*)	.479	.007	.250	3.503
	3	1.142	.426	.402	-.305	2.589
10	4	-.032	.374	1.000	-1.303	1.239
	5	.022	.424	1.000	-1.417	1.460
	6	.057	.361	1.000	-1.167	1.281
	7	.352	.413	1.000	-1.050	1.753
	8	.526	.354	1.000	-.674	1.726
	10	-.271	.432	1.000	-1.738	1.195
	11	2.289(*)	.433	.000	.819	3.759
	12	3.937(*)	.509	.000	2.210	5.663
	1	1.345	.503	.408	-.363	3.053
	2	2.148(*)	.535	.005	.334	3.962
	3	1.413	.460	.142	-.149	2.976
	4	.239	.402	1.000	-1.125	1.604
11	5	.293	.427	1.000	-1.155	1.741
	6	.329	.401	1.000	-1.034	1.691
	7	.623	.432	1.000	-.843	2.090
	8	.797	.431	.988	-.666	2.260
	9	.271	.432	1.000	-1.195	1.738
	11	2.560(*)	.413	.000	1.159	3.962
	12	4.208(*)	.538	.000	2.381	6.035
	1	-1.215	.446	.363	-2.730	.299
	2	-.412	.487	1.000	-2.066	1.241

12	3	-1.147	.438	.457	-2.632	.338
	4	-2.321(*)	.417	.000	-3.737	-.906
	5	-2.267(*)	.451	.000	-3.796	-.738
	6	-2.232(*)	.403	.000	-3.600	-.864
	7	-1.937(*)	.453	.002	-3.474	-.400
	8	-1.763(*)	.430	.003	-3.223	-.303
	9	-2.289(*)	.433	.000	-3.759	-.819
	10	-2.560(*)	.413	.000	-3.962	-1.159
	12	1.647(*)	.405	.004	.274	3.021
	1	-2.863(*)	.502	.000	-4.567	-1.159
	2	-2.060(*)	.563	.020	-3.972	-.148
	3	-2.794(*)	.499	.000	-4.487	-1.102
	4	-3.969(*)	.507	.000	-5.691	-2.247
	5	-3.915(*)	.557	.000	-5.806	-2.024
	6	-3.879(*)	.513	.000	-5.621	-2.138
	7	-3.585(*)	.564	.000	-5.499	-1.671
	8	-3.411(*)	.530	.000	-5.208	-1.613
	9	-3.937(*)	.509	.000	-5.663	-2.210
	10	-4.208(*)	.538	.000	-6.035	-2.381
	11	-1.647(*)	.405	.004	-3.021	-.274

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	7.186	.539	6.126	8.245
Medium	7.113	.371	6.383	7.844

High	8.354	.509	7.352	9.356
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### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Product Level	(J) Total Product Level				Upper Bound	Lower Bound
Low	Medium	.072	.654	.999	-1.498	1.643
	High	-1.168	.741	.309	-2.948	.611
Medium	Low	-.072	.654	.999	-1.643	1.498
	High	-1.241	.630	.142	-2.754	.272
High	Low	1.168	.741	.309	-.611	2.948
	Medium	1.241	.630	.142	-.272	2.754

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	92.902	2	46.451	2.106	.123	.013	.431
Error	7013.711	318	22.056				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Product Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Product Level	year			Lower Bound	Upper Bound
Low	1	7.44	.748	5.969	8.913

Medium	2	6.06	.884	4.325	7.803
	3	7.37	.715	5.967	8.782
	4	7.74	.631	6.498	8.979
	5	7.62	.727	6.190	9.050
	6	7.98	.677	6.647	9.311
	7	7.40	.794	5.839	8.963
	8	7.35	.785	5.810	8.899
	9	8.69	.792	7.135	10.251
	10	7.79	.844	6.133	9.453
	11	6.29	.773	4.775	7.815
	12	4.47	.895	2.712	6.235
	1	7.19	.516	6.180	8.209
	2	6.56	.609	5.361	7.758
	3	7.04	.493	6.074	8.014
	4	7.85	.435	6.990	8.700
	5	7.77	.501	6.780	8.750
	6	7.92	.467	6.998	8.834
	7	7.90	.547	6.824	8.978
	8	7.60	.541	6.537	8.666
	9	7.80	.546	6.729	8.876
	10	8.01	.581	6.866	9.153
	11	5.75	.532	4.704	6.799
	12	3.97	.617	2.754	5.181
High	1	7.54	.708	6.147	8.931
	2	7.14	.836	5.497	8.786
	3	7.55	.676	6.220	8.882
	4	9.91	.596	8.734	11.080
	5	9.95	.687	8.593	11.297
	6	9.33	.640	8.069	10.588
	7	9.04	.751	7.561	10.516
	8	8.86	.742	7.401	10.322
	9	8.90	.749	7.427	10.373

10	10.41	.798	8.838	11.977
11	6.48	.730	5.045	7.919
12	5.14	.846	3.479	6.810

## ***General Linear Model with Level of Corporate Governance for ROA***

### **Within-Subjects Factors**

Measure: MEASURE\_1

year	Dependent Variable
1	ROA91
2	ROA92
3	ROA93
4	ROA94
5	ROA95
6	ROA96
7	ROA97
8	ROA98
9	ROA99
10	ROA00
11	ROA01
12	ROA02

### **Between-Subjects Factors**

	Value Label	N
Total Corp	1 Low	81
Gov Level	2 Medium	204
	3 High	36

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3930.901	11	357.355	13.860	.000	.042	1.000
	Greenhouse-Geisser	3930.901	6.786	579.291	13.860	.000	.042	1.000
	Huynh-Feldt	3930.901	6.993	562.148	13.860	.000	.042	1.000
	Lower-bound	3930.901	1	3930.901	13.860	.000	.042	.960
year * cgovtot_lvi	Sphericity Assumed	625.020	22	28.410	1.102	.335	.007	.852
	Greenhouse-Geisser	625.020	13.571	46.054	1.102	.351	.007	.694
	Huynh-Feldt	625.020	13.985	44.691	1.102	.350	.007	.704
	Lower-bound	625.020	2	312.510	1.102	.334	.007	.243
Error(year)	Sphericity Assumed	90191.933	3498	25.784				
	Greenhouse-Geisser	90191.933	2157.854	41.797				
	Huynh-Feldt	90191.933	2223.662	40.560				
	Lower-bound	90191.933	318	283.622				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	229.261	1	229.261	3.593	.059	.011	.472
	Quadratic	2017.563	1	2017.563	34.450	.000	.098	1.000
	Cubic	896.513	1	896.513	34.692	.000	.098	1.000
year * cgovtot_lvi	Linear	52.956	2	26.478	.415	.661	.003	.117
	Quadratic	17.998	2	8.999	.154	.858	.001	.074
	Cubic	254.098	2	127.049	4.916	.008	.030	.805
Error(year)	Linear	20291.941	318	63.811				
	Quadratic	18623.875	318	58.566				
	Cubic	8217.895	318	25.842				



a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	1170.992	2	585.496	2.214	.111	.014	.450
Error	84108.361	318	264.492				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Total Corp Gov Level

#### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	7.546	.522	6.519	8.572
Medium	7.163	.329	6.516	7.810
High	8.941	.782	7.402	10.481

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Corp Gov Level	(J) Total Corp Gov Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

Low	Medium	.383	.617	.900	-1.097	1.863
	High	-1.396	.940	.361	-3.653	.862
Medium	Low	-.383	.617	.900	-1.863	1.097
	High	-1.778	.849	.107	-3.816	.259
High	Low	1.396	.940	.361	-.862	3.653
	Medium	1.778	.849	.107	-.259	3.816

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	97.583	2	48.791	2.214	.111	.014	.450
Error	7009.030	318	22.041				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.892	.459	6.989	8.794
2	6.890	.545	5.818	7.962
3	7.654	.439	6.791	8.517
4	8.610	.393	7.836	9.385
5	8.579	.453	7.689	9.470
6	8.475	.419	7.650	9.300
7	8.506	.490	7.542	9.469

8	8.572	.482	7.625	9.519
9	8.736	.488	7.776	9.696
10	9.586	.516	8.571	10.602
11	6.518	.475	5.583	7.452
12	4.580	.552	3.494	5.667

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	1.002	.417	.676	-.414	2.417
	3	.238	.371	1.000	-1.022	1.498
	4	-.719	.425	.998	-2.162	.725
	5	-.688	.475	1.000	-2.298	.923
	6	-.583	.451	1.000	-2.114	.947
	7	-.614	.534	1.000	-2.426	1.198
	8	-.680	.504	1.000	-2.390	1.029
	9	-.844	.548	1.000	-2.702	1.014
	10	-1.695	.605	.300	-3.747	.358
	11	1.374	.536	.513	-.445	3.194
	12	3.311(*)	.603	.000	1.265	5.357
2	1	-1.002	.417	.676	-2.417	.414
	3	-.764	.415	.989	-2.171	.644
	4	-1.720(*)	.478	.024	-3.341	-.099
	5	-1.689	.520	.081	-3.453	.074
	6	-1.585	.528	.173	-3.376	.206
	7	-1.615	.635	.531	-3.770	.539
	8	-1.682	.575	.218	-3.634	.271
	9	-1.846	.577	.096	-3.805	.113
	10	-2.696(*)	.639	.002	-4.866	-.526

3	11	.373	.586	1.000	-1.616	2.361
	12	2.310(*)	.677	.047	.011	4.609
	1	-.238	.371	1.000	-1.498	1.022
	2	.764	.415	.989	-.644	2.171
	4	-.957	.306	.119	-1.994	.081
	5	-.926	.389	.697	-2.246	.394
	6	-.821	.374	.857	-2.092	.449
	7	-.852	.485	.996	-2.498	.794
	8	-.918	.476	.976	-2.535	.699
	9	-1.082	.512	.907	-2.820	.655
	10	-1.933(*)	.549	.032	-3.796	-.069
	11	1.136	.525	.876	-.645	2.917
4	12	3.073(*)	.599	.000	1.039	5.108
	1	.719	.425	.998	-.725	2.162
	2	1.720(*)	.478	.024	.099	3.341
	3	.957	.306	.119	-.081	1.994
	5	.031	.273	1.000	-.894	.956
	6	.135	.294	1.000	-.862	1.133
	7	.105	.415	1.000	-1.304	1.513
	8	.039	.423	1.000	-1.398	1.475
	9	-.126	.452	1.000	-1.661	1.410
	10	-.976	.475	.936	-2.589	.637
	11	2.093(*)	.503	.003	.384	3.801
	12	4.030(*)	.611	.000	1.957	6.103
5	1	.688	.475	1.000	-.923	2.298
	2	1.689	.520	.081	-.074	3.453
	3	.926	.389	.697	-.394	2.246
	4	-.031	.273	1.000	-.956	.894
	6	.104	.322	1.000	-.988	1.196
	7	.074	.441	1.000	-1.424	1.572
	8	.008	.449	1.000	-1.515	1.531
	9	-.157	.512	1.000	-1.894	1.580
	10	-1.007	.506	.959	-2.723	.709

6	11	2.062(*)	.544	.012	.216	3.908
	12	3.999(*)	.671	.000	1.723	6.275
	1	.583	.451	1.000	-.947	2.114
	2	1.585	.528	.173	-.206	3.376
	3	.821	.374	.857	-.449	2.092
	4	-.135	.294	1.000	-1.133	.862
	5	-.104	.322	1.000	-1.196	.988
	7	-.031	.334	1.000	-1.165	1.104
	8	-.097	.375	1.000	-1.369	1.175
	9	-.261	.434	1.000	-1.733	1.211
	10	-1.111	.476	.741	-2.727	.505
	11	1.957(*)	.485	.004	.313	3.602
7	12	3.895(*)	.616	.000	1.804	5.985
	1	.614	.534	1.000	-1.198	2.426
	2	1.615	.635	.531	-.539	3.770
	3	.852	.485	.996	-.794	2.498
	4	-.105	.415	1.000	-1.513	1.304
	5	-.074	.441	1.000	-1.572	1.424
	6	.031	.334	1.000	-1.104	1.165
	8	-.066	.414	1.000	-1.472	1.340
	9	-.230	.498	1.000	-1.920	1.459
	10	-1.081	.514	.914	-2.827	.665
	11	1.988(*)	.545	.020	.138	3.838
	12	3.925(*)	.678	.000	1.624	6.226
8	1	.680	.504	1.000	-1.029	2.390
	2	1.682	.575	.218	-.271	3.634
	3	.918	.476	.976	-.699	2.535
	4	-.039	.423	1.000	-1.475	1.398
	5	-.008	.449	1.000	-1.531	1.515
	6	.097	.375	1.000	-1.175	1.369
	7	.066	.414	1.000	-1.340	1.472
	9	-.164	.425	1.000	-1.608	1.279
	10	-1.014	.518	.968	-2.772	.743

9	11	2.054(*)	.517	.006	.298	3.810
	12	3.991(*)	.634	.000	1.841	6.142
	1	.844	.548	1.000	-1.014	2.702
	2	1.846	.577	.096	-.113	3.805
	3	1.082	.512	.907	-.655	2.820
	4	.126	.452	1.000	-1.410	1.661
	5	.157	.512	1.000	-1.580	1.894
	6	.261	.434	1.000	-1.211	1.733
	7	.230	.498	1.000	-1.459	1.920
	8	.164	.425	1.000	-1.279	1.608
	10	-.850	.518	.999	-2.608	.908
	11	2.218(*)	.521	.002	.452	3.985
10	12	4.156(*)	.611	.000	2.083	6.228
	1	1.695	.605	.300	-.358	3.747
	2	2.696(*)	.639	.002	.526	4.866
	3	1.933(*)	.549	.032	.069	3.796
	4	.976	.475	.936	-.637	2.589
	5	1.007	.506	.959	-.709	2.723
	6	1.111	.476	.741	-.505	2.727
	7	1.081	.514	.914	-.665	2.827
	8	1.014	.518	.968	-.743	2.772
	9	.850	.518	.999	-.908	2.608
	11	3.069(*)	.496	.000	1.384	4.753
	12	5.006(*)	.641	.000	2.832	7.180
11	1	-1.374	.536	.513	-3.194	.445
	2	-.373	.586	1.000	-2.361	1.616
	3	-1.136	.525	.876	-2.917	.645
	4	-2.093(*)	.503	.003	-3.801	-.384
	5	-2.062(*)	.544	.012	-3.908	-.216
	6	-1.957(*)	.485	.004	-3.602	-.313
	7	-1.988(*)	.545	.020	-3.838	-.138
	8	-2.054(*)	.517	.006	-3.810	-.298
	9	-2.218(*)	.521	.002	-3.985	-.452

12	10	-3.069(*)	.496	.000	-4.753	-1.384
	12	1.937(*)	.485	.005	.291	3.583
	1	-3.311(*)	.603	.000	-5.357	-1.265
	2	-2.310(*)	.677	.047	-4.609	-.011
	3	-3.073(*)	.599	.000	-5.108	-1.039
	4	-4.030(*)	.611	.000	-6.103	-1.957
	5	-3.999(*)	.671	.000	-6.275	-1.723
	6	-3.895(*)	.616	.000	-5.985	-1.804
	7	-3.925(*)	.678	.000	-6.226	-1.624
	8	-3.991(*)	.634	.000	-6.142	-1.841
	9	-4.156(*)	.611	.000	-6.228	-2.083
	10	-5.006(*)	.641	.000	-7.180	-2.832
	11	-1.937(*)	.485	.005	-3.583	-.291

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Total Corp Gov Level \* year

Measure: MEASURE\_1

				95% Confidence Interval	
Total Corp Gov Level	year	Mean	Std. Error	Lower Bound	Upper Bound
Low	1	7.30	.721	5.886	8.721
	2	6.53	.856	4.843	8.211
	3	6.65	.689	5.294	8.005
	4	8.20	.618	6.983	9.415
	5	8.16	.711	6.762	9.560
	6	8.47	.659	7.176	9.769
	7	7.90	.769	6.387	9.414
	8	8.62	.756	7.131	10.107
	9	8.39	.767	6.884	9.901
	10	10.14	.811	8.544	11.735
	11	6.38	.746	4.910	7.847

Medium	12	3.80	.867	2.097	5.510
	1	7.00	.454	6.110	7.896
	2	6.43	.539	5.365	7.488
	3	7.16	.434	6.309	8.018
	4	8.25	.389	7.488	9.020
	5	8.17	.448	7.292	9.055
	6	8.15	.415	7.334	8.968
	7	7.86	.485	6.908	8.815
	8	7.23	.477	6.293	8.169
	9	8.00	.483	7.052	8.953
	10	7.54	.511	6.535	8.546
	11	5.71	.470	4.781	6.632
High	12	4.44	.546	3.367	5.517
	1	9.37	1.081	7.242	11.495
	2	7.72	1.284	5.191	10.243
	3	9.15	1.033	7.115	11.181
	4	9.38	.927	7.554	11.202
	5	9.40	1.067	7.306	11.503
	6	8.80	.988	6.857	10.746
	7	9.75	1.154	7.484	12.025
	8	9.87	1.135	7.633	12.098
	9	9.81	1.150	7.551	12.076
	10	11.08	1.216	8.686	13.472
	11	7.47	1.120	5.265	9.671
	12	5.50	1.301	2.936	8.055

### ***General Linear Model with Level of Total CSR for ROA***

**Between-Subjects Factors**



		Value Label	N
Total CSR Level	1	Low	81
	2	Medium	159
	3	High	81

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	4938.371	11	448.943	17.376	.000	.052	1.000
	Greenhouse-Geisser	4938.371	6.807	725.437	17.376	.000	.052	1.000
	Huynh-Feldt	4938.371	7.016	703.917	17.376	.000	.052	1.000
	Lower-bound	4938.371	1	4938.371	17.376	.000	.052	.986
year * CSRtot_level	Sphericity Assumed	438.919	22	19.951	.772	.764	.005	.658
	Greenhouse-Geisser	438.919	13.615	32.238	.772	.697	.005	.501
	Huynh-Feldt	438.919	14.031	31.282	.772	.701	.005	.510
	Lower-bound	438.919	2	219.460	.772	.463	.005	.181
Error(year)	Sphericity Assumed	90378.034	3498	25.837				
	Greenhouse-Geisser	90378.034	2164.767	41.750				
	Huynh-Feldt	90378.034	2230.947	40.511				
	Lower-bound	90378.034	318	284.208				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	374.545	1	374.545	5.890	.016	.018	.677
	Quadratic	2961.291	1	2961.291	50.839	.000	.138	1.000

year * CSRtot_level	Cubic	765.997	1	765.997	28.786	.000	.083	1.000
	Linear	122.221	2	61.111	.961	.384	.006	.216
	Quadratic	118.753	2	59.377	1.019	.362	.006	.227
Error(year)	Cubic	10.139	2	5.070	.191	.827	.001	.080
	Linear	20222.676	318	63.593				
	Quadratic	18523.120	318	58.249				
	Cubic	8461.853	318	26.610				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRtot_level	530.337	2	265.169	.995	.371	.006	.223
Error	84749.016	318	266.506				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7.322	.382	6.569	8.074
2	6.488	.451	5.602	7.375

3	7.155	.366	6.436	7.874
4	8.261	.326	7.619	8.903
5	8.323	.376	7.583	9.063
6	8.270	.348	7.585	8.954
7	8.096	.407	7.295	8.898
8	7.850	.403	7.058	8.643
9	8.363	.405	7.565	9.161
10	8.581	.435	7.726	9.437
11	6.022	.395	5.246	6.798
12	4.425	.455	3.530	5.319

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	.833	.346	.667	-.340	2.007
	3	.167	.307	1.000	-.874	1.208
	4	-.940	.353	.419	-2.138	.259
	5	-1.002	.394	.533	-2.339	.335
	6	-.948	.375	.548	-2.221	.325
	7	-.775	.443	.996	-2.278	.728
	8	-.529	.419	1.000	-1.950	.892
	9	-1.041	.454	.777	-2.582	.499
	10	-1.260	.505	.581	-2.973	.454
	11	1.299	.445	.219	-.211	2.809
	12	2.897(*)	.499	.000	1.202	4.591
	2	-.833	.346	.667	-2.007	.340
2	3	-.667	.341	.970	-1.824	.491
	4	-1.773(*)	.396	.001	-3.115	-.431
	5	-1.835(*)	.429	.002	-3.293	-.378

3	6	-1.781(*)	.436	.004	-3.262	-.301
	7	-1.608	.526	.148	-3.393	.177
	8	-1.362	.478	.265	-2.984	.260
	9	-1.875(*)	.478	.007	-3.496	-.254
	10	-2.093(*)	.535	.007	-3.907	-.279
	11	.466	.486	1.000	-1.184	2.116
	12	2.064(*)	.561	.018	.159	3.969
	1	-.167	.307	1.000	-1.208	.874
	2	.667	.341	.970	-.491	1.824
	4	-1.106(*)	.253	.001	-1.966	-.246
	5	-1.168(*)	.322	.022	-2.261	-.076
	6	-1.115(*)	.312	.027	-2.174	-.055
4	7	-.942	.401	.726	-2.302	.419
	8	-.696	.397	.996	-2.042	.651
	9	-1.208	.423	.262	-2.644	.228
	10	-1.427	.460	.129	-2.986	.133
	11	1.133	.435	.470	-.342	2.608
	12	2.730(*)	.492	.000	1.061	4.399
	1	.940	.353	.419	-.259	2.138
	2	1.773(*)	.396	.001	.431	3.115
	3	1.106(*)	.253	.001	.246	1.966
	5	-.062	.225	1.000	-.826	.702
	6	-.009	.244	1.000	-.835	.818
	7	.165	.344	1.000	-1.002	1.331
5	8	.411	.353	1.000	-.788	1.610
	9	-.102	.374	1.000	-1.372	1.168
	10	-.320	.400	1.000	-1.678	1.037
	11	2.239(*)	.418	.000	.821	3.656
	12	3.836(*)	.504	.000	2.126	5.547
	1	1.002	.394	.533	-.335	2.339
	2	1.835(*)	.429	.002	.378	3.293
	3	1.168(*)	.322	.022	.076	2.261
	4	.062	.225	1.000	-.702	.826

6	6	.054	.267	1.000	-.853	.960
	7	.227	.366	1.000	-1.016	1.469
	8	.473	.374	1.000	-.797	1.743
	9	-.040	.425	1.000	-1.481	1.401
	10	-.258	.425	1.000	-1.699	1.183
	11	2.301(*)	.451	.000	.771	3.832
	12	3.899(*)	.554	.000	2.018	5.780
	1	.948	.375	.548	-.325	2.221
	2	1.781(*)	.436	.004	.301	3.262
	3	1.115(*)	.312	.027	.055	2.174
	4	.009	.244	1.000	-.818	.835
	5	-.054	.267	1.000	-.960	.853
7	7	.173	.278	1.000	-.770	1.116
	8	.419	.313	1.000	-.644	1.483
	9	-.093	.360	1.000	-1.313	1.127
	10	-.312	.400	1.000	-1.669	1.045
	11	2.247(*)	.402	.000	.884	3.611
	12	3.845(*)	.508	.000	2.120	5.570
	1	.775	.443	.996	-.728	2.278
	2	1.608	.526	.148	-.177	3.393
	3	.942	.401	.726	-.419	2.302
	4	-.165	.344	1.000	-1.331	1.002
	5	-.227	.366	1.000	-1.469	1.016
	6	-.173	.278	1.000	-1.116	.770
8	8	.246	.345	1.000	-.926	1.418
	9	-.267	.413	1.000	-1.668	1.135
	10	-.485	.432	1.000	-1.950	.980
	11	2.074(*)	.452	.000	.539	3.609
	12	3.672(*)	.561	.000	1.767	5.577
	1	.529	.419	1.000	-.892	1.950
	2	1.362	.478	.265	-.260	2.984
	3	.696	.397	.996	-.651	2.042
	4	-.411	.353	1.000	-1.610	.788

9	5	-.473	.374	1.000	-1.743	.797
	6	-.419	.313	1.000	-1.483	.644
	7	-.246	.345	1.000	-1.418	.926
	9	-.513	.353	1.000	-1.712	.687
	10	-.731	.430	.998	-2.191	.729
	11	1.828(*)	.430	.002	.370	3.286
	12	3.426(*)	.526	.000	1.639	5.212
	1	1.041	.454	.777	-.499	2.582
	2	1.875(*)	.478	.007	.254	3.496
	3	1.208	.423	.262	-.228	2.644
	4	.102	.374	1.000	-1.168	1.372
	5	.040	.425	1.000	-1.401	1.481
10	6	.093	.360	1.000	-1.127	1.313
	7	.267	.413	1.000	-1.135	1.668
	8	.513	.353	1.000	-.687	1.712
	10	-.218	.433	1.000	-1.689	1.252
	11	2.341(*)	.431	.000	.877	3.805
	12	3.938(*)	.506	.000	2.222	5.655
	1	1.260	.505	.581	-.454	2.973
	2	2.093(*)	.535	.007	.279	3.907
	3	1.427	.460	.129	-.133	2.986
	4	.320	.400	1.000	-1.037	1.678
	5	.258	.425	1.000	-1.183	1.699
	6	.312	.400	1.000	-1.045	1.669
11	7	.485	.432	1.000	-.980	1.950
	8	.731	.430	.998	-.729	2.191
	9	.218	.433	1.000	-1.252	1.689
	11	2.559(*)	.415	.000	1.151	3.968
	12	4.157(*)	.538	.000	2.332	5.982
	1	-1.299	.445	.219	-2.809	.211
	2	-.466	.486	1.000	-2.116	1.184
	3	-1.133	.435	.470	-2.608	.342
	4	-2.239(*)	.418	.000	-3.656	-.821

12	5	-2.301(*)	.451	.000	-3.832	-.771
	6	-2.247(*)	.402	.000	-3.611	-.884
	7	-2.074(*)	.452	.000	-3.609	-.539
	8	-1.828(*)	.430	.002	-3.286	-.370
	9	-2.341(*)	.431	.000	-3.805	-.877
	10	-2.559(*)	.415	.000	-3.968	-1.151
	12	1.598(*)	.402	.006	.233	2.962
	1	-2.897(*)	.499	.000	-4.591	-1.202
	2	-2.064(*)	.561	.018	-3.969	-.159
	3	-2.730(*)	.492	.000	-4.399	-1.061
	4	-3.836(*)	.504	.000	-5.547	-2.126
	5	-3.899(*)	.554	.000	-5.780	-2.018
	6	-3.845(*)	.508	.000	-5.570	-2.120
	7	-3.672(*)	.561	.000	-5.577	-1.767
	8	-3.426(*)	.526	.000	-5.212	-1.639
	9	-3.938(*)	.506	.000	-5.655	-2.222
	10	-4.157(*)	.538	.000	-5.982	-2.332
	11	-1.598(*)	.402	.006	-2.962	-.233

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	6.863	.524	5.833	7.893
Medium	7.550	.374	6.814	8.285
High	7.876	.524	6.846	8.907

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total CSR Level	(J) Total CSR Level				Upper Bound	Lower Bound
Low	Medium	-.687	.643	.637	-2.231	.857
	High	-1.013	.741	.433	-2.791	.764
Medium	Low	.687	.643	.637	-.857	2.231
	High	-.327	.643	.942	-1.871	1.218
High	Low	1.013	.741	.433	-.764	2.791
	Medium	.327	.643	.942	-1.218	1.871

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	44.195	2	22.097	.995	.371	.006	.223
Error	7062.418	318	22.209				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total CSR Level	year			Lower Bound	Upper Bound
Low	1	6.81	.724	5.382	8.231
	2	5.35	.853	3.671	7.028



Medium	3	7.20	.692	5.842	8.566
	4	7.72	.618	6.501	8.932
	5	8.13	.712	6.727	9.529
	6	8.13	.659	6.834	9.428
	7	7.63	.771	6.115	9.149
	8	7.41	.763	5.908	8.909
	9	7.99	.768	6.479	9.501
	10	7.69	.823	6.068	9.308
	11	5.26	.747	3.793	6.733
	12	3.04	.861	1.345	4.734
	1	7.41	.517	6.397	8.431
	2	6.93	.609	5.736	8.132
	3	7.57	.494	6.601	8.545
	4	8.69	.441	7.826	9.561
	5	8.26	.508	7.261	9.261
	6	8.42	.471	7.490	9.342
	7	8.04	.550	6.961	9.127
	8	7.96	.544	6.888	9.030
	9	8.12	.548	7.041	9.198
	10	8.63	.588	7.474	9.786
	11	6.23	.533	5.184	7.283
	12	4.32	.615	3.110	5.529
High	1	7.74	.724	6.319	9.169
	2	7.18	.853	5.502	8.860
	3	6.69	.692	5.326	8.050
	4	8.37	.618	7.158	9.589
	5	8.58	.712	7.180	9.982
	6	8.26	.659	6.965	9.559
	7	8.61	.771	7.096	10.131
	8	8.18	.763	6.683	9.684
	9	8.98	.768	7.469	10.490
	10	9.43	.823	7.807	11.046

11	6.57	.747	5.100	8.040
12	5.92	.861	4.220	7.610

## APPENDIX O

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for Sales

#### *General Linear Model with Level of Community Relations for Sales*

##### Between-Subjects Factors

		Value Label	N
Total Community Level	1	Low	185
	2	Medium	86
	3	High	77

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	11447116031.469	11	1040646911.952	32.369	.000	.086	1.000
	Greenhouse-Geisser	11447116031.469	1.631	7020456363.644	32.369	.000	.086	1.000
	Huynh-Feldt	11447116031.469	1.647	6951543159.528	32.369	.000	.086	1.000
	Lower-bound	11447116031.469	1	11447116031.469	32.369	.000	.086	1.000
year * comtot_lvl	Sphericity Assumed	812356753.575	22	36925306.981	1.149	.285	.007	.870
	Greenhouse-Geisser	812356753.575	3.261	249107073.105	1.149	.330	.007	.324
	Huynh-Feldt	812356753.575	3.293	246661823.724	1.149	.330	.007	.326
	Lower-bound	812356753.575	2	406178376.787	1.149	.318	.007	.252

Error(year)	Sphericity Assumed	12200714649 8.513	3795	32149445.718				
	Greenhouse-Geisser	12200714649 8.513	562.535	216887955.16 0				
	Huynh-Feldt	12200714649 8.513	568.112	214758970.49 7				
	Lower-bound	12200714649 8.513	345	353643902.89 4				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	10608560004.569	1	10608560004.569	40.403	.000	.105	1.000
	Quadratic	194964776.562	1	194964776.562	5.831	.016	.017	.673
	Cubic	322375736.831	1	322375736.831	23.066	.000	.063	.998
year * comtot_lvl	Linear	382737594.134	2	191368797.067	.729	.483	.004	.173
	Quadratic	275047225.237	2	137523612.619	4.113	.017	.023	.726
	Cubic	71058076.169	2	35529038.085	2.542	.080	.015	.507
Error(year)	Linear	90586584922.022	345	262569811.368				
	Quadratic	11535833715.586	345	33437199.176				
	Cubic	4821884973.248	345	13976478.183				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	28781280895.422	2	14390640447.711	3.175	.043	.018	.606
Error	1563626538879.808	345	4532250837.333				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9182.201	942.111	7329.197	11035.205
2	9276.582	957.839	7392.643	11160.520
3	9225.491	954.233	7348.645	11102.337
4	9693.983	1030.270	7667.581	11720.385
5	10131.411	1082.185	8002.900	12259.922
6	10434.970	1092.884	8285.416	12584.523
7	11208.838	1142.023	8962.633	13455.042
8	11484.416	1117.365	9286.711	13682.121
9	12655.352	1285.014	10127.904	15182.800
10	13892.446	1407.748	11123.597	16661.294
11	13980.651	1404.015	11219.146	16742.157
12	13511.724	1413.432	10731.695	16291.753

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound

1	2	-94.381	80.634	1.000	-367.817	179.055
	3	-43.290	155.244	1.000	-569.736	483.156
	4	-511.782	243.232	.912	-1336.604	313.041
	5	-949.210	315.398	.169	-2018.755	120.335
	6	-1252.769(*)	353.885	.030	-2452.826	-52.711
	7	-2026.637(*)	412.308	.000	-3424.811	-628.462
	8	-2302.215(*)	476.762	.000	-3918.961	-685.468
	9	-3473.151(*)	587.000	.000	-5463.724	-1482.577
	10	-4710.245(*)	721.037	.000	-7155.349	-2265.141
	11	-4798.450(*)	784.468	.000	-7458.658	-2138.243
	12	-4329.523(*)	813.130	.000	-7086.923	-1572.123
2	1	94.381	80.634	1.000	-179.055	367.817
	3	51.091	99.426	1.000	-286.073	388.254
	4	-417.401	181.894	.775	-1034.221	199.419
	5	-854.829	254.084	.055	-1716.454	6.795
	6	-1158.388(*)	296.545	.007	-2164.002	-152.775
	7	-1932.256(*)	358.603	.000	-3148.314	-716.198
	8	-2207.834(*)	428.308	.000	-3660.268	-755.401
	9	-3378.770(*)	541.733	.000	-5215.839	-1541.701
	10	-4615.864(*)	683.503	.000	-6933.689	-2298.039
	11	-4704.070(*)	747.537	.000	-7239.038	-2169.102
	12	-4235.142(*)	772.259	.000	-6853.947	-1616.337
3	1	43.290	155.244	1.000	-483.156	569.736
	2	-51.091	99.426	1.000	-388.254	286.073
	4	-468.492(*)	113.329	.003	-852.801	-84.182
	5	-905.920(*)	196.439	.000	-1572.064	-239.776
	6	-1209.479(*)	243.512	.000	-2035.250	-383.708
	7	-1983.346(*)	312.096	.000	-3041.692	-925.001
	8	-2258.925(*)	374.402	.000	-3528.559	-989.291
	9	-3429.861(*)	504.248	.000	-5139.815	-1719.906
	10	-4666.955(*)	655.216	.000	-6888.855	-2445.054
	11	-4755.160(*)	722.100	.000	-7203.871	-2306.450
	12	-4286.233(*)	740.342	.000	-6796.802	-1775.663

4	1	511.782	243.232	.912	-313.041	1336.604
	2	417.401	181.894	.775	-199.419	1034.221
	3	468.492(*)	113.329	.003	84.182	852.801
	5	-437.428(*)	123.272	.029	-855.454	-19.402
	6	-740.987(*)	191.741	.009	-1391.198	-90.776
	7	-1514.855(*)	263.888	.000	-2409.725	-619.984
	8	-1790.433(*)	340.366	.000	-2944.648	-636.218
	9	-2961.369(*)	460.554	.000	-4523.152	-1399.585
	10	-4198.463(*)	614.780	.000	-6283.239	-2113.686
	11	-4286.668(*)	690.679	.000	-6628.829	-1944.508
	12	-3817.741(*)	702.402	.000	-6199.652	-1435.830
5	1	949.210	315.398	.169	-120.335	2018.755
	2	854.829	254.084	.055	-6.795	1716.454
	3	905.920(*)	196.439	.000	239.776	1572.064
	4	437.428(*)	123.272	.029	19.402	855.454
	6	-303.559	136.098	.828	-765.080	157.963
	7	-1077.427(*)	219.976	.000	-1823.385	-331.468
	8	-1353.005(*)	309.472	.001	-2402.454	-303.556
	9	-2523.941(*)	412.601	.000	-3923.111	-1124.770
	10	-3761.035(*)	564.979	.000	-5676.931	-1845.138
	11	-3849.240(*)	652.004	.000	-6060.250	-1638.231
	12	-3380.313(*)	658.800	.000	-5614.368	-1146.257
6	1	1252.769(*)	353.885	.030	52.711	2452.826
	2	1158.388(*)	296.545	.007	152.775	2164.002
	3	1209.479(*)	243.512	.000	383.708	2035.250
	4	740.987(*)	191.741	.009	90.776	1391.198
	5	303.559	136.098	.828	-157.963	765.080
	7	-773.868(*)	145.746	.000	-1268.106	-279.630
	8	-1049.446(*)	255.097	.003	-1914.505	-184.387
	9	-2220.382(*)	359.894	.000	-3440.816	-999.948
	10	-3457.476(*)	515.397	.000	-5205.235	-1709.716
	11	-3545.682(*)	596.706	.000	-5569.168	-1522.195
	12	-3076.754(*)	591.305	.000	-5081.925	-1071.582

7	1	2026.637(*)	412.308	.000	628.462	3424.811
	2	1932.256(*)	358.603	.000	716.198	3148.314
	3	1983.346(*)	312.096	.000	925.001	3041.692
	4	1514.855(*)	263.888	.000	619.984	2409.725
	5	1077.427(*)	219.976	.000	331.468	1823.385
	6	773.868(*)	145.746	.000	279.630	1268.106
	8	-275.578	169.122	.999	-849.086	297.929
	9	-1446.514(*)	274.557	.000	-2377.564	-515.465
	10	-2683.608(*)	436.072	.000	-4162.369	-1204.848
	11	-2771.814(*)	530.345	.000	-4570.264	-973.364
	12	-2302.886(*)	529.879	.001	-4099.756	-506.016
8	1	2302.215(*)	476.762	.000	685.468	3918.961
	2	2207.834(*)	428.308	.000	755.401	3660.268
	3	2258.925(*)	374.402	.000	989.291	3528.559
	4	1790.433(*)	340.366	.000	636.218	2944.648
	5	1353.005(*)	309.472	.001	303.556	2402.454
	6	1049.446(*)	255.097	.003	184.387	1914.505
	7	275.578	169.122	.999	-297.929	849.086
	9	-1170.936(*)	261.111	.001	-2056.387	-285.485
	10	-2408.030(*)	439.240	.000	-3897.534	-918.526
	11	-2496.236(*)	514.112	.000	-4239.639	-752.832
	12	-2027.308(*)	508.468	.005	-3751.573	-303.043
9	1	3473.151(*)	587.000	.000	1482.577	5463.724
	2	3378.770(*)	541.733	.000	1541.701	5215.839
	3	3429.861(*)	504.248	.000	1719.906	5139.815
	4	2961.369(*)	460.554	.000	1399.585	4523.152
	5	2523.941(*)	412.601	.000	1124.770	3923.111
	6	2220.382(*)	359.894	.000	999.948	3440.816
	7	1446.514(*)	274.557	.000	515.465	2377.564
	8	1170.936(*)	261.111	.001	285.485	2056.387
	10	-1237.094(*)	233.396	.000	-2028.564	-445.624
	11	-1325.300(*)	389.610	.048	-2646.505	-4.095
	12	-856.372	389.940	.854	-2178.695	465.951



10	1	4710.245(*)	721.037	.000	2265.141	7155.349
	2	4615.864(*)	683.503	.000	2298.039	6933.689
	3	4666.955(*)	655.216	.000	2445.054	6888.855
	4	4198.463(*)	614.780	.000	2113.686	6283.239
	5	3761.035(*)	564.979	.000	1845.138	5676.931
	6	3457.476(*)	515.397	.000	1709.716	5205.235
	7	2683.608(*)	436.072	.000	1204.848	4162.369
	8	2408.030(*)	439.240	.000	918.526	3897.534
	9	1237.094(*)	233.396	.000	445.624	2028.564
11	11	-88.206	281.053	1.000	-1041.285	864.873
	12	380.722	343.182	1.000	-783.041	1544.484
	1	4798.450(*)	784.468	.000	2138.243	7458.658
	2	4704.070(*)	747.537	.000	2169.102	7239.038
	3	4755.160(*)	722.100	.000	2306.450	7203.871
	4	4286.668(*)	690.679	.000	1944.508	6628.829
	5	3849.240(*)	652.004	.000	1638.231	6060.250
	6	3545.682(*)	596.706	.000	1522.195	5569.168
	7	2771.814(*)	530.345	.000	973.364	4570.264
12	8	2496.236(*)	514.112	.000	752.832	4239.639
	9	1325.300(*)	389.610	.048	4.095	2646.505
	10	88.206	281.053	1.000	-864.873	1041.285
	12	468.928	293.568	1.000	-526.588	1464.443
	1	4329.523(*)	813.130	.000	1572.123	7086.923
	2	4235.142(*)	772.259	.000	1616.337	6853.947
	3	4286.233(*)	740.342	.000	1775.663	6796.802
	4	3817.741(*)	702.402	.000	1435.830	6199.652
	5	3380.313(*)	658.800	.000	1146.257	5614.368
	6	3076.754(*)	591.305	.000	1071.582	5081.925
	7	2302.886(*)	529.879	.001	506.016	4099.756
	8	2027.308(*)	508.468	.005	303.043	3751.573
	9	856.372	389.940	.854	-465.951	2178.695
	10	-380.722	343.182	1.000	-1544.484	783.041
	11	-468.928	293.568	1.000	-1464.443	526.588

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	8097.647	1428.830	5287.333	10907.960
Medium	10900.873	2095.642	6779.030	15022.716
High	14670.996	2214.731	10314.922	19027.071

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Community Level	(J) Total Community Level				Upper Bound	Lower Bound
Low	Medium	-2803.226	2536.389	.611	-8889.005	3282.552
	High	-6573.350(*)	2635.638	.039	-12897.264	-249.435
Medium	Low	2803.226	2536.389	.611	-3282.552	8889.005
	High	-3770.123	3049.057	.520	-11085.990	3545.743
High	Low	6573.350(*)	2635.638	.039	249.435	12897.264
	Medium	3770.123	3049.057	.520	-3545.743	11085.990

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	239844007 4.619	2	1199220037.3 10	3.175	.043	.018	.606
Error	130302211 573.318	345	377687569.77 8				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

Total Community Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	5922.72	1199.305	3563.846	8281.587
	2	6043.58	1219.327	3645.327	8441.826
	3	6271.23	1214.736	3882.010	8660.453
	4	6815.86	1311.532	4236.252	9395.462
	5	7424.32	1377.620	4714.729	10133.910
	6	7681.15	1391.239	4944.770	10417.525
	7	8216.57	1453.793	5357.155	11075.981
	8	8532.41	1422.403	5734.734	11330.082
	9	9274.88	1635.820	6057.445	12492.317
	10	10275.72	1792.060	6750.981	13800.458
	11	10726.42	1787.308	7211.030	14241.811
	12	9986.91	1799.296	6447.944	13525.885
Medium	1	8935.31	1759.002	5475.594	12395.030
	2	9161.05	1788.367	5643.574	12678.523
	3	9282.65	1781.635	5778.419	12786.886
	4	9860.95	1923.604	6077.487	13644.420
	5	10428.17	2020.533	6454.059	14402.286
	6	10411.67	2040.508	6398.272	14425.074
	7	11041.70	2132.255	6847.847	15235.560

High	8	11207.26	2086.217	7103.957	15310.566
	9	12058.53	2399.232	7339.569	16777.495
	10	13206.94	2628.387	8037.265	18376.622
	11	12615.99	2621.416	7460.017	17771.954
	12	12600.24	2639.000	7409.684	17790.790
	1	12688.57	1858.961	9032.251	16344.898
	2	12625.12	1889.994	8907.759	16342.482
	3	12122.59	1882.880	8419.221	15825.957
	4	12405.14	2032.916	8406.669	16403.607
	5	12541.74	2135.354	8341.791	16741.692
	6	13212.09	2156.464	8970.618	17453.559
	7	14368.24	2253.425	9936.061	18800.422
	8	14713.58	2204.770	10377.095	19050.061
	9	16632.64	2535.573	11645.515	21619.769
	10	18194.67	2777.750	12731.219	23658.130
	11	18599.55	2770.383	13150.582	24048.514
	12	17948.02	2788.966	12462.504	23433.536

### ***General Linear Model with Level of Diversity for Sales***

#### **Between-Subjects Factors**

		Value Label	N
Total Diversity Level	1	Low	116
	2	Medium	145
	3	High	87

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	12220527995.779	11	1110957090.526	34.700	.000	.091	1.000
	Greenhouse-Geisser	12220527995.779	1.634	7477558631.950	34.700	.000	.091	1.000
	Huynh-Feldt	12220527995.779	1.651	7404017285.349	34.700	.000	.091	1.000
	Lower-bound	12220527995.779	1	12220527995.779	34.700	.000	.091	1.000
year * divtot_IVI	Sphericity Assumed	1319986465.548	22	59999384.798	1.874	.008	.011	.989
	Greenhouse-Geisser	1319986465.548	3.269	403840005.642	1.874	.127	.011	.510
	Huynh-Feldt	1319986465.548	3.301	399868263.087	1.874	.127	.011	.513
	Lower-bound	1319986465.548	2	659993232.774	1.874	.155	.011	.389
Error(year)	Sphericity Assumed	12149951678.6539	3795	32015682.948				
	Greenhouse-Geisser	12149951678.6539	563.831	215489102.527				
	Huynh-Feldt	12149951678.6539	569.432	213369779.957				
	Lower-bound	12149951678.6539	345	352172512.425				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	11402636319.650	1	11402636319.650	43.715	.000	.112	1.000
	Quadratic	98378928.940	1	98378928.940	2.878	.091	.008	.394
	Cubic	332379303.364	1	332379303.364	23.993	.000	.065	.998
year * divtot_IVI	Linear	980401014.4	2	490200507.21	1.879	.154	.011	.390

Error(year)		30		5				
	Quadratic	18457717.390	2	9228858.695	.270	.764	.002	.093
	Cubic	113552299.132	2	56776149.566	4.098	.017	.023	.725
	Linear	89988921501.726	345	260837453.628				
	Quadratic	11792423223.433	345	34180936.880				
	Cubic	4779390750.285	345	13853306.523				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
divtot_lvl	147308405095.566	2	73654202547.783	17.584	.000	.093	1.000
Error	1445099414679.664	345	4188693955.594				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9123.065	854.658	7442.069	10804.061
2	9231.741	868.812	7522.907	10940.575

3	9244.583	865.537	7542.189	10946.976
4	9791.740	934.884	7952.952	11630.529
5	10288.952	983.603	8354.340	12223.565
6	10557.342	994.981	8600.350	12514.333
7	11300.005	1039.399	9255.648	13344.361
8	11514.338	1018.918	9510.265	13518.412
9	12638.538	1177.095	10323.354	14953.723
10	13890.835	1290.231	11353.127	16428.544
11	13919.903	1295.910	11371.025	16468.781
12	13354.115	1309.324	10778.853	15929.377

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-108.676	76.601	1.000	-368.438	151.086
	3	-121.518	148.595	1.000	-625.419	382.383
	4	-668.676	232.047	.243	-1455.568	118.216
	5	-1165.887(*)	301.024	.008	-2186.688	-145.087
	6	-1434.277(*)	336.148	.002	-2574.186	-294.368
	7	-2176.940(*)	389.497	.000	-3497.763	-856.117
	8	-2391.274(*)	450.863	.000	-3920.194	-862.353
	9	-3515.474(*)	553.345	.000	-5391.920	-1639.028
	10	-4767.771(*)	678.376	.000	-7068.210	-2467.332
	11	-4796.838(*)	741.638	.000	-7311.804	-2281.872
	12	-4231.050(*)	769.768	.000	-6841.408	-1620.692
2	1	108.676	76.601	1.000	-151.086	368.438
	3	-12.842	95.350	1.000	-336.183	310.499
	4	-560.000	173.769	.088	-1149.269	29.269
	5	-1057.212(*)	242.821	.001	-1880.639	-233.784

3	6	-1325.601(*)	281.727	.000	-2280.965	-370.237
	7	-2068.264(*)	338.567	.000	-3216.378	-920.150
	8	-2282.598(*)	405.000	.000	-3655.992	-909.203
	9	-3406.798(*)	510.745	.000	-5138.782	-1674.814
	10	-4659.095(*)	643.170	.000	-6840.145	-2478.045
	11	-4688.162(*)	707.186	.000	-7086.296	-2290.028
	12	-4122.374(*)	731.443	.000	-6602.766	-1641.982
	1	121.518	148.595	1.000	-382.383	625.419
	2	12.842	95.350	1.000	-310.499	336.183
	4	-547.158(*)	106.494	.000	-908.289	-186.026
	5	-1044.369(*)	185.884	.000	-1674.721	-414.017
	6	-1312.759(*)	230.017	.000	-2092.769	-532.748
4	7	-2055.422(*)	293.326	.000	-3050.118	-1060.726
	8	-2269.756(*)	353.332	.000	-3467.939	-1071.572
	9	-3393.956(*)	475.051	.000	-5004.900	-1783.011
	10	-4646.253(*)	616.127	.000	-6735.598	-2556.907
	11	-4675.320(*)	683.512	.000	-6993.175	-2357.466
	12	-4109.532(*)	701.752	.000	-6489.239	-1729.825
	1	668.676	232.047	.243	-118.216	1455.568
	2	560.000	173.769	.088	-29.269	1149.269
	3	547.158(*)	106.494	.000	186.026	908.289
	5	-497.212(*)	117.186	.002	-894.602	-99.821
	6	-765.601(*)	181.648	.002	-1381.586	-149.617
	7	-1508.264(*)	249.295	.000	-2353.649	-662.879
5	8	-1722.598(*)	321.922	.000	-2814.266	-630.929
	9	-2846.798(*)	435.639	.000	-4324.092	-1369.504
	10	-4099.095(*)	580.120	.000	-6066.338	-2131.852
	11	-4128.163(*)	655.228	.000	-6350.104	-1906.221
	12	-3562.375(*)	666.920	.000	-5823.965	-1300.784
	1	1165.887(*)	301.024	.008	145.087	2186.688
	2	1057.212(*)	242.821	.001	233.784	1880.639
	3	1044.369(*)	185.884	.000	414.017	1674.721
	4	497.212(*)	117.186	.002	99.821	894.602



6	6	-268.390	129.637	.928	-708.002	171.223
	7	-1011.052(*)	209.190	.000	-1720.435	-301.670
	8	-1225.386(*)	293.860	.003	-2221.892	-228.880
	9	-2349.586(*)	392.171	.000	-3679.474	-1019.698
	10	-3601.883(*)	534.716	.000	-5415.157	-1788.609
	11	-3630.951(*)	620.324	.000	-5734.529	-1527.373
	12	-3065.163(*)	627.148	.000	-5191.881	-938.445
	1	1434.277(*)	336.148	.002	294.368	2574.186
	2	1325.601(*)	281.727	.000	370.237	2280.965
	3	1312.759(*)	230.017	.000	532.748	2092.769
	4	765.601(*)	181.648	.002	149.617	1381.586
	5	268.390	129.637	.928	-171.223	708.002
7	7	-742.663(*)	137.677	.000	-1209.537	-275.788
	8	-956.997(*)	241.711	.006	-1776.661	-137.332
	9	-2081.197(*)	341.056	.000	-3237.750	-924.644
	10	-3333.494(*)	486.477	.000	-4983.182	-1683.805
	11	-3362.561(*)	566.910	.000	-5285.007	-1440.116
	12	-2796.773(*)	562.401	.000	-4703.928	-889.619
	1	2176.940(*)	389.497	.000	856.117	3497.763
	2	2068.264(*)	338.567	.000	920.150	3216.378
	3	2055.422(*)	293.326	.000	1060.726	3050.118
	4	1508.264(*)	249.295	.000	662.879	2353.649
	5	1011.052(*)	209.190	.000	301.670	1720.435
	6	742.663(*)	137.677	.000	275.788	1209.537
8	8	-214.334	159.350	1.000	-754.705	326.038
	9	-1338.534(*)	260.561	.000	-2222.123	-454.945
	10	-2590.831(*)	412.071	.000	-3988.203	-1193.459
	11	-2619.898(*)	503.945	.000	-4328.824	-910.973
	12	-2054.110(*)	503.610	.004	-3761.898	-346.322
	1	2391.274(*)	450.863	.000	862.353	3920.194
	2	2282.598(*)	405.000	.000	909.203	3655.992
	3	2269.756(*)	353.332	.000	1071.572	3467.939
	4	1722.598(*)	321.922	.000	630.929	2814.266

9	5	1225.386(*)	293.860	.003	228.880	2221.892
	6	956.997(*)	241.711	.006	137.332	1776.661
	7	214.334	159.350	1.000	-326.038	754.705
	9	-1124.200(*)	246.857	.000	-1961.315	-287.085
	10	-2376.497(*)	413.611	.000	-3779.091	-973.904
	11	-2405.565(*)	488.620	.000	-4062.522	-748.607
	12	-1839.777(*)	483.635	.011	-3479.828	-199.725
	1	3515.474(*)	553.345	.000	1639.028	5391.920
	2	3406.798(*)	510.745	.000	1674.814	5138.782
	3	3393.956(*)	475.051	.000	1783.011	5004.900
	4	2846.798(*)	435.639	.000	1369.504	4324.092
	5	2349.586(*)	392.171	.000	1019.698	3679.474
10	6	2081.197(*)	341.056	.000	924.644	3237.750
	7	1338.534(*)	260.561	.000	454.945	2222.123
	8	1124.200(*)	246.857	.000	287.085	1961.315
	10	-1252.297(*)	219.676	.000	-1997.239	-507.356
	11	-1281.365(*)	369.946	.039	-2535.887	-26.843
	12	-715.577	369.493	.974	-1968.562	537.408
	1	4767.771(*)	678.376	.000	2467.332	7068.210
	2	4659.095(*)	643.170	.000	2478.045	6840.145
	3	4646.253(*)	616.127	.000	2556.907	6735.598
	4	4099.095(*)	580.120	.000	2131.852	6066.338
	5	3601.883(*)	534.716	.000	1788.609	5415.157
	6	3333.494(*)	486.477	.000	1683.805	4983.182
11	7	2590.831(*)	412.071	.000	1193.459	3988.203
	8	2376.497(*)	413.611	.000	973.904	3779.091
	9	1252.297(*)	219.676	.000	507.356	1997.239
	11	-29.068	264.634	1.000	-926.466	868.331
	12	536.720	321.632	.999	-553.965	1627.406
	1	4796.838(*)	741.638	.000	2281.872	7311.804
	2	4688.162(*)	707.186	.000	2290.028	7086.296
	3	4675.320(*)	683.512	.000	2357.466	6993.175
	4	4128.163(*)	655.228	.000	1906.221	6350.104

12	5	3630.951(*)	620.324	.000	1527.373	5734.529
	6	3362.561(*)	566.910	.000	1440.116	5285.007
	7	2619.898(*)	503.945	.000	910.973	4328.824
	8	2405.565(*)	488.620	.000	748.607	4062.522
	9	1281.365(*)	369.946	.039	26.843	2535.887
	10	29.068	264.634	1.000	-868.331	926.466
	12	565.788	278.460	.945	-378.498	1510.074
	1	4231.050(*)	769.768	.000	1620.692	6841.408
	2	4122.374(*)	731.443	.000	1641.982	6602.766
	3	4109.532(*)	701.752	.000	1729.825	6489.239
	4	3562.375(*)	666.920	.000	1300.784	5823.965
	5	3065.163(*)	627.148	.000	938.445	5191.881
	6	2796.773(*)	562.401	.000	889.619	4703.928
	7	2054.110(*)	503.610	.004	346.322	3761.898
	8	1839.777(*)	483.635	.011	199.725	3479.828
	9	715.577	369.493	.974	-537.408	1968.562
	10	-536.720	321.632	.999	-1627.406	553.965
	11	-565.788	278.460	.945	-1510.074	378.498

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Diversity Level

### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	5129.153	1734.681	1717.271	8541.035
Medium	8333.815	1551.546	5282.135	11385.495
High	20250.821	2003.037	16311.119	24190.523

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Diversity Level	(J) Total Diversity Level				Upper Bound	Lower Bound
Low	Medium	-3204.662	2327.319	.427	-8788.800	2379.477
	High	15121.667(*)	2649.769	.000	-21479.488	-8763.846
Medium	Low	3204.662	2327.319	.427	-2379.477	8788.800
	High	11917.005(*)	2533.664	.000	-17996.245	-5837.765
High	Low	15121.667(*)	2649.769	.000	8763.846	21479.488
	Medium	11917.005(*)	2533.664	.000	5837.765	17996.245

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	122757004 24.631	2	6137850212.3 16	17.584	.000	.093	1.000
Error	120424951 223.306	345	349057829.63 3				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Diversity Level \* year

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	3879.00	1448.473	1030.054	6727.952
	2	3895.19	1472.460	999.060	6791.317
	3	4024.68	1466.910	1139.469	6909.896
	4	4306.11	1584.439	1189.739	7422.491
	5	4618.01	1667.008	1339.235	7896.790
	6	4787.96	1686.291	1471.256	8104.666
	7	5123.17	1761.572	1658.399	8587.943
	8	5308.03	1726.861	1911.531	8704.531
	9	5771.56	1994.938	1847.789	9695.330
	10	6456.28	2186.681	2155.372	10757.179
	11	6761.10	2196.305	2441.271	11080.938
	12	6618.74	2219.039	2254.189	10983.286
Medium	1	5992.22	1295.554	3444.040	8540.395
	2	6131.06	1317.008	3540.680	8721.433
	3	6247.82	1312.045	3667.205	8828.431
	4	6614.65	1417.165	3827.277	9402.020
	5	7184.43	1491.017	4251.805	10117.061
	6	7576.38	1508.265	4609.828	10542.930
	7	8243.67	1575.598	5144.686	11342.658
	8	8898.11	1544.551	5860.186	11936.029
	9	9785.63	1784.326	6276.102	13295.156
	10	10776.81	1955.827	6929.966	14623.656
	11	11592.43	1964.435	7728.655	15456.207
	12	10962.58	1984.769	7058.810	14866.352
High	1	17497.97	1672.553	14208.290	20787.657
	2	17668.98	1700.250	14324.816	21013.138
	3	17461.25	1693.842	14129.691	20792.805
	4	18454.46	1829.553	14855.977	22052.939
	5	19064.41	1924.895	15278.405	22850.417
	6	19307.69	1947.161	15477.884	23137.487

7	20533.17	2034.088	16532.397	24533.945
8	20336.88	1994.007	16414.936	24258.817
9	22358.43	2303.555	17827.646	26889.207
10	24439.42	2524.961	19473.164	29405.675
11	23406.17	2536.075	18418.060	28394.288
12	22481.03	2562.326	17441.280	27520.773

### ***General Linear Model with Level of Employee Relations for Sales***

#### **Between-Subjects Factors**

		Value Label	N
Total Emp Relations Level	1	Low	155
	2	Medium	111
	3	High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	13201519226.667	11	1200138111.516	37.750	.000	.099	1.000
	Greenhouse-Geisser	13201519226.667	1.641	8047069158.372	37.750	.000	.099	1.000
	Huynh-Feldt	13201519226.667	1.657	7967674807.744	37.750	.000	.099	1.000
	Lower-bound	13201519226.667	1	13201519226.667	37.750	.000	.099	1.000
	Upper-bound	13201519226.667	1	13201519226.667	37.750	.000	.099	1.000
year * emptot_lvi	Sphericity Assumed	2170867286.264	22	98675785.739	3.104	.000	.018	1.000
	Greenhouse-Geisser	2170867286.264	3.281	661632910.814	3.104	.022	.018	.753
	Huynh-Feldt	2170867286.264	3.314	655105078.84	3.104	.022	.018	.756

		264		6				
	Lower-bound	2170867286.		1085433643.1	3.104	.046	.018	.596
		264	2	32				
Error(year)	Sphericity Assumed	12064863596	3795	31791471.928				
		5.823						
	Greenhouse-Geisser	12064863596	565.985	213165610.52				
		5.823		0				
	Huynh-Feldt	12064863596	571.625	211062466.51				
		5.823		9				
	Lower-bound	12064863596	345	349706191.20				
		5.823		6				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	12387824063.255	1	12387824063.255	47.828	.000	.122	1.000
	Quadratic	128427349.665	1	128427349.665	3.830	.051	.011	.497
	Cubic	296518490.852	1	296518490.852	21.040	.000	.057	.996
year * emptot_lvi	Linear	1612287271.042	2	806143635.521	3.112	.046	.018	.597
	Quadratic	242018244.353	2	121009122.176	3.609	.028	.020	.666
	Cubic	30913092.447	2	15456546.223	1.097	.335	.006	.242
Error(year)	Linear	89357035245.114	345	259005899.261				
	Quadratic	11568862696.470	345	33532935.352				
	Cubic	4862029956.970	345	14092840.455				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	45916624531.133	2	22958312265.567	5.122	.006	.029	.822
Error	1546491195244.097	345	4482583174.621				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8854.196	904.754	7074.667	10633.725
2	8983.156	918.533	7176.527	10789.785
3	9029.422	912.590	7234.481	10824.363
4	9596.509	982.804	7663.467	11529.552
5	10108.622	1031.173	8080.445	12136.799
6	10375.029	1042.712	8324.156	12425.901
7	11099.791	1090.510	8954.905	13244.676
8	11391.977	1066.593	9294.133	13489.820
9	12539.257	1226.563	10126.774	14951.740
10	13816.260	1341.118	11178.464	16454.057
11	13957.421	1336.932	11327.858	16586.984
12	13399.160	1349.111	10745.643	16052.678



### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-128.960	77.440	.999	-391.565	133.645
	3	-175.226	150.333	1.000	-685.020	334.567
	4	-742.314	233.894	.103	-1535.472	50.845
	5	-1254.426(*)	303.931	.003	-2285.087	-223.766
	6	-1520.833(*)	339.968	.001	-2673.696	-367.970
	7	-2245.595(*)	394.919	.000	-3584.802	-906.388
	8	-2537.781(*)	456.828	.000	-4086.928	-988.633
	9	-3685.061(*)	560.159	.000	-5584.613	-1785.510
	10	-4962.065(*)	685.460	.000	-7286.524	-2637.605
	11	-5103.225(*)	745.962	.000	-7632.855	-2573.595
	12	-4544.964(*)	776.454	.000	-7177.995	-1911.934
2	1	128.960	77.440	.999	-133.645	391.565
	3	-46.266	96.762	1.000	-374.394	281.862
	4	-613.353(*)	175.012	.034	-1206.837	-19.870
	5	-1125.466(*)	245.127	.000	-1956.714	-294.218
	6	-1391.872(*)	284.981	.000	-2358.272	-425.473
	7	-2116.635(*)	343.496	.000	-3281.461	-951.808
	8	-2408.821(*)	410.504	.000	-3800.878	-1016.763
	9	-3556.101(*)	517.104	.000	-5309.650	-1802.552
	10	-4833.104(*)	649.839	.000	-7036.772	-2629.437
	11	-4974.265(*)	710.920	.000	-7385.062	-2563.467
	12	-4416.004(*)	737.661	.000	-6917.483	-1914.525
3	1	175.226	150.333	1.000	-334.567	685.020
	2	46.266	96.762	1.000	-281.862	374.394
	4	-567.087(*)	107.709	.000	-932.337	-201.837

4	5	-1079.200(*)	188.259	.000	-1717.603	-440.797
	6	-1345.606(*)	233.302	.000	-2136.754	-554.458
	7	-2070.368(*)	298.762	.000	-3083.500	-1057.237
	8	-2362.554(*)	358.783	.000	-3579.221	-1145.888
	9	-3509.835(*)	481.788	.000	-5143.623	-1876.047
	10	-4786.838(*)	623.342	.000	-6900.651	-2673.025
	11	-4927.999(*)	687.061	.000	-7257.888	-2598.109
	12	-4369.738(*)	707.738	.000	-6769.744	-1969.732
	1	742.314	233.894	.103	-50.845	1535.472
	2	613.353(*)	175.012	.034	19.870	1206.837
	3	567.087(*)	107.709	.000	201.837	932.337
	5	-512.113(*)	118.729	.001	-914.735	-109.491
5	6	-778.519(*)	184.148	.002	-1402.984	-154.054
	7	-1503.281(*)	253.239	.000	-2362.039	-644.523
	8	-1795.467(*)	326.944	.000	-2904.164	-686.770
	9	-2942.748(*)	441.113	.000	-4438.605	-1446.891
	10	-4219.751(*)	585.720	.000	-6205.983	-2233.519
	11	-4360.911(*)	657.654	.000	-6591.081	-2130.742
	12	-3802.651(*)	672.343	.000	-6082.631	-1522.670
	1	1254.426(*)	303.931	.003	223.766	2285.087
	2	1125.466(*)	245.127	.000	294.218	1956.714
	3	1079.200(*)	188.259	.000	440.797	1717.603
	4	512.113(*)	118.729	.001	109.491	914.735
	6	-266.406	131.232	.945	-711.428	178.615
6	7	-991.168(*)	212.209	.000	-1710.789	-271.548
	8	-1283.354(*)	298.175	.001	-2294.496	-272.213
	9	-2430.635(*)	396.646	.000	-3775.701	-1085.569
	10	-3707.638(*)	539.223	.000	-5536.194	-1879.082
	11	-3848.799(*)	621.741	.000	-5957.180	-1740.417
	12	-3290.538(*)	631.773	.000	-5432.940	-1148.136
	1	1520.833(*)	339.968	.001	367.970	2673.696
	2	1391.872(*)	284.981	.000	425.473	2358.272
	3	1345.606(*)	233.302	.000	554.458	2136.754

7	4	778.519(*)	184.148	.002	154.054	1402.984
	5	266.406	131.232	.945	-178.615	711.428
	7	-724.762(*)	139.972	.000	-1199.421	-250.103
	8	-1016.948(*)	245.119	.003	-1848.171	-185.725
	9	-2164.229(*)	344.500	.000	-3332.460	-995.997
	10	-3441.232(*)	489.926	.000	-5102.619	-1779.845
	11	-3582.392(*)	566.820	.000	-5504.533	-1660.251
	12	-3024.132(*)	565.595	.000	-4942.119	-1106.144
	1	2245.595(*)	394.919	.000	906.388	3584.802
	2	2116.635(*)	343.496	.000	951.808	3281.461
	3	2070.368(*)	298.762	.000	1057.237	3083.500
	4	1503.281(*)	253.239	.000	644.523	2362.039
8	5	991.168(*)	212.209	.000	271.548	1710.789
	6	724.762(*)	139.972	.000	250.103	1199.421
	8	-292.186	162.303	.993	-842.570	258.198
	9	-1439.467(*)	262.507	.000	-2329.652	-549.281
	10	-2716.470(*)	413.803	.000	-4119.717	-1313.223
	11	-2857.630(*)	503.514	.000	-4565.094	-1150.167
	12	-2299.370(*)	506.775	.001	-4017.891	-580.848
	1	2537.781(*)	456.828	.000	988.633	4086.928
	2	2408.821(*)	410.504	.000	1016.763	3800.878
	3	2362.554(*)	358.783	.000	1145.888	3579.221
	4	1795.467(*)	326.944	.000	686.770	2904.164
	5	1283.354(*)	298.175	.001	272.213	2294.496
9	6	1016.948(*)	245.119	.003	185.725	1848.171
	7	292.186	162.303	.993	-258.198	842.570
	9	-1147.281(*)	249.023	.000	-1991.743	-302.819
	10	-2424.284(*)	416.314	.000	-3836.043	-1012.525
	11	-2565.444(*)	486.819	.000	-4216.294	-914.594
	12	-2007.184(*)	485.626	.003	-3653.987	-360.380
	1	3685.061(*)	560.159	.000	1785.510	5584.613
	2	3556.101(*)	517.104	.000	1802.552	5309.650
	3	3509.835(*)	481.788	.000	1876.047	5143.623

10	4	2942.748(*)	441.113	.000	1446.891	4438.605
	5	2430.635(*)	396.646	.000	1085.569	3775.701
	6	2164.229(*)	344.500	.000	995.997	3332.460
	7	1439.467(*)	262.507	.000	549.281	2329.652
	8	1147.281(*)	249.023	.000	302.819	1991.743
	10	-1277.003(*)	221.078	.000	-2026.700	-527.306
	11	-1418.164(*)	370.556	.010	-2674.753	-161.574
	12	-859.903	373.730	.770	-2127.258	407.452
	1	4962.065(*)	685.460	.000	2637.605	7286.524
	2	4833.104(*)	649.839	.000	2629.437	7036.772
	3	4786.838(*)	623.342	.000	2673.025	6900.651
	4	4219.751(*)	585.720	.000	2233.519	6205.983
11	5	3707.638(*)	539.223	.000	1879.082	5536.194
	6	3441.232(*)	489.926	.000	1779.845	5102.619
	7	2716.470(*)	413.803	.000	1313.223	4119.717
	8	2424.284(*)	416.314	.000	1012.525	3836.043
	9	1277.003(*)	221.078	.000	527.306	2026.700
	11	-141.160	269.510	1.000	-1055.096	772.775
	12	417.100	329.177	1.000	-699.170	1533.370
	1	5103.225(*)	745.962	.000	2573.595	7632.855
	2	4974.265(*)	710.920	.000	2563.467	7385.062
	3	4927.999(*)	687.061	.000	2598.109	7257.888
	4	4360.911(*)	657.654	.000	2130.742	6591.081
	5	3848.799(*)	621.741	.000	1740.417	5957.180
12	6	3582.392(*)	566.820	.000	1660.251	5504.533
	7	2857.630(*)	503.514	.000	1150.167	4565.094
	8	2565.444(*)	486.819	.000	914.594	4216.294
	9	1418.164(*)	370.556	.010	161.574	2674.753
	10	141.160	269.510	1.000	-772.775	1055.096
	12	558.261	280.350	.959	-392.433	1508.954
	1	4544.964(*)	776.454	.000	1911.934	7177.995
	2	4416.004(*)	737.661	.000	1914.525	6917.483
	3	4369.738(*)	707.738	.000	1969.732	6769.744

4	3802.651(*)	672.343	.000	1522.670	6082.631
5	3290.538(*)	631.773	.000	1148.136	5432.940
6	3024.132(*)	565.595	.000	1106.144	4942.119
7	2299.370(*)	506.775	.001	580.848	4017.891
8	2007.184(*)	485.626	.003	360.380	3653.987
9	859.903	373.730	.770	-407.452	2127.258
10	-417.100	329.177	1.000	-1533.370	699.170
11	-558.261	280.350	.959	-1508.954	392.433

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp Relations Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	6728.954	1552.415	3675.566	9782.342
Medium	11875.910	1834.476	8267.745	15484.075
High	14682.837	2134.355	10484.851	18880.822

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-5146.956	2403.184	.096	-10913.123	619.212
	High	-7953.883(*)	2639.216	.008	-14286.382	-1621.383

Medium	Low	5146.956	2403.184	.096	-619.212	10913.123
	High	-2806.927	2814.387	.685	-9559.729	3945.875
High	Low	7953.883(*)	2639.216	.008	1621.383	14286.382
	Medium	2806.927	2814.387	.685	-3945.875	9559.729

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3826385377.595	2	1913192688.798	5.122	.006	.029	.822
Error	128874266270.342	345	373548597.885				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Low	1	5411.64	1310.972	2833.138	7990.145
	2	5439.26	1330.937	2821.489	8057.033
	3	5483.84	1322.326	2883.008	8084.679
	4	5781.41	1424.065	2980.471	8582.355
	5	6199.95	1494.150	3261.161	9138.742
	6	6509.16	1510.870	3537.480	9480.831
	7	6983.00	1580.129	3875.105	10090.903
	8	7289.17	1545.473	4249.430	10328.901
	9	7584.96	1777.267	4089.322	11080.607
	10	8022.99	1943.255	4200.869	11845.103

Medium	11	8091.34	1937.189	4281.154	11901.529
	12	7950.72	1954.836	4105.822	11795.616
	1	9240.61	1549.166	6193.611	12287.607
	2	9349.09	1572.758	6255.689	12442.490
	3	9323.00	1562.583	6249.609	12396.384
	4	9702.99	1682.806	6393.139	13012.841
	5	10231.67	1765.626	6758.925	13704.417
	6	10562.82	1785.383	7051.210	14074.422
	7	11575.81	1867.226	7903.226	15248.386
	8	11749.31	1826.274	8157.283	15341.346
	9	13628.98	2100.183	9498.211	17759.758
	10	15631.62	2296.329	11115.058	20148.190
High	11	16459.80	2289.161	11957.333	20962.271
	12	15055.21	2310.015	10511.729	19598.697
	1	11910.34	1802.405	8365.252	15455.422
	2	12161.12	1829.854	8562.044	15760.191
	3	12281.43	1818.015	8705.638	15857.216
	4	13305.13	1957.892	9454.218	17156.032
	5	13894.24	2054.250	9853.815	17934.673
	6	14053.11	2077.237	9967.472	18138.756
	7	14740.56	2172.458	10467.632	19013.492
	8	15137.45	2124.812	10958.235	19316.665
	9	16403.82	2443.496	11597.798	21209.847
	10	17794.17	2671.706	12539.290	23049.053
	11	17321.12	2663.367	12082.639	22559.599
	12	17191.55	2687.629	11905.348	22477.749

## ***General Linear Model with Level of Environment for Sales***

**Between-Subjects Factors**

		Value Label	N
Total Environment Level	1	Low	88
	2	Medium	174
	3	High	86

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	12550584085.359	11	1140962189.579	35.878	.000	.094	1.000
	Greenhouse-Geisser	12550584085.359	1.639	7657173377.064	35.878	.000	.094	1.000
	Huynh-Feldt	12550584085.359	1.655	7581682398.862	35.878	.000	.094	1.000
	Lower-bound	12550584085.359	1	12550584085.359	35.878	.000	.094	1.000
year * envtot_lvl	Sphericity Assumed	2133032902.514	22	96956041.023	3.049	.000	.017	1.000
	Greenhouse-Geisser	2133032902.514	3.278	650686957.772	3.049	.024	.017	.744
	Huynh-Feldt	2133032902.514	3.311	644271928.032	3.049	.024	.017	.747
	Lower-bound	2133032902.514	2	1066516451.257	3.049	.049	.017	.587
Error(year)	Sphericity Assumed	12068647034.9573	3795	31801441.462				
	Greenhouse-Geisser	12068647034.9573	565.476	213424382.633				
	Huynh-Feldt	12068647034.9573	571.107	211320262.140				
	Lower-bound	12068647034.9573	345	349815856.086				

a. Computed using alpha = .05



### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	11794387293.151	1	11794387293.151	45.561	.000	.117	1.000
	Quadratic	103947128.979	1	103947128.979	3.065	.081	.009	.415
	Cubic	268523845.682	1	268523845.682	18.935	.000	.052	.991
year * envtot_lvl	Linear	1659186428.290	2	829593214.145	3.205	.042	.018	.610
	Quadratic	110354515.683	2	55177257.842	1.627	.198	.009	.343
	Cubic	428997.238	2	214498.619	.015	.985	.000	.052
Error(year)	Linear	89310136087.866	345	258869959.675				
	Quadratic	11700526425.140	345	33914569.348				
	Cubic	4892514052.179	345	14181200.151				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	149510231156.178	2	74755115578.089	17.874	.000	.094	1.000
Error	1442897588619.052	345	4182311851.070				

a. Computed using alpha = .05

### Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9174.797	886.134	7431.891	10917.702
2	9297.184	901.128	7524.787	11069.580
3	9326.370	896.772	7562.542	11090.199
4	9881.100	967.925	7977.323	11784.877
5	10488.330	1010.912	8500.003	12476.656
6	10779.288	1023.673	8765.862	12792.713
7	11484.922	1073.154	9374.175	13595.669
8	11699.373	1056.826	9620.741	13778.006
9	12761.069	1218.780	10363.894	15158.244
10	14065.258	1331.614	11446.155	16684.361
11	14349.249	1321.621	11749.801	16948.698
12	13665.172	1337.867	11033.770	16296.574

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-122.387	79.048	1.000	-390.445	145.671
	3	-151.574	153.303	1.000	-671.440	368.292
	4	-706.304	239.217	.200	-1517.513	104.906
	5	-1313.533(*)	308.278	.002	-2358.932	-268.134
	6	-1604.491(*)	345.133	.000	-2774.870	-434.113

2	7	-2310.125(*)	401.074	.000	-3670.206	-950.045
	8	-2524.577(*)	466.153	.000	-4105.346	-943.808
	9	-3586.273(*)	572.048	.000	-5526.142	-1646.404
	10	-4890.462(*)	699.200	.000	-7261.514	-2519.409
	11	-5174.453(*)	759.719	.000	-7750.733	-2598.173
	12	-4490.375(*)	790.310	.000	-7170.392	-1810.359
	1	122.387	79.048	1.000	-145.671	390.445
	3	-29.187	98.525	1.000	-363.295	304.922
	4	-583.916	179.030	.077	-1191.024	23.191
	5	-1191.146(*)	247.760	.000	-2031.323	-350.969
	6	-1482.104(*)	288.713	.000	-2461.159	-503.049
	7	-2187.738(*)	348.286	.000	-3368.810	-1006.666
3	8	-2402.190(*)	418.786	.000	-3822.334	-982.045
	9	-3463.886(*)	527.876	.000	-5253.962	-1673.809
	10	-4768.074(*)	662.537	.000	-7014.799	-2521.349
	11	-5052.066(*)	723.757	.000	-7506.394	-2597.737
	12	-4367.988(*)	750.420	.000	-6912.735	-1823.241
	1	151.574	153.303	1.000	-368.292	671.440
	2	29.187	98.525	1.000	-304.922	363.295
	4	-554.730(*)	109.713	.000	-926.775	-182.684
	5	-1161.959(*)	187.748	.000	-1798.632	-525.287
	6	-1452.917(*)	234.665	.000	-2248.690	-657.145
	7	-2158.552(*)	301.580	.000	-3181.238	-1135.865
	8	-2373.003(*)	365.835	.000	-3613.584	-1132.422
4	9	-3434.699(*)	491.344	.000	-5100.892	-1768.506
	10	-4738.888(*)	634.773	.000	-6891.464	-2586.312
	11	-5022.879(*)	698.699	.000	-7392.234	-2653.524
	12	-4338.802(*)	719.176	.000	-6777.597	-1900.006
	1	706.304	239.217	.200	-104.906	1517.513
	2	583.916	179.030	.077	-23.191	1191.024
	3	554.730(*)	109.713	.000	182.684	926.775
	5	-607.230(*)	117.960	.000	-1007.244	-207.216
	6	-898.188(*)	186.025	.000	-1529.018	-267.357

5	7	-1603.822(*)	256.728	.000	-2474.410	-733.234
	8	-1818.273(*)	333.356	.000	-2948.714	-687.833
	9	-2879.969(*)	450.872	.000	-4408.919	-1351.019
	10	-4184.158(*)	598.062	.000	-6212.244	-2156.072
	11	-4468.149(*)	671.120	.000	-6743.980	-2192.319
	12	-3784.072(*)	684.625	.000	-6105.700	-1462.444
	1	1313.533(*)	308.278	.002	268.134	2358.932
	2	1191.146(*)	247.760	.000	350.969	2031.323
	3	1161.959(*)	187.748	.000	525.287	1798.632
	4	607.230(*)	117.960	.000	207.216	1007.244
	6	-290.958	133.720	.868	-744.415	162.500
	7	-996.592(*)	216.755	.000	-1731.630	-261.554
6	8	-1211.044(*)	303.081	.005	-2238.819	-183.268
	9	-2272.740(*)	406.942	.000	-3652.719	-892.760
	10	-3576.928(*)	553.601	.000	-5454.242	-1699.615
	11	-3860.920(*)	637.935	.000	-6024.220	-1697.619
	12	-3176.842(*)	645.627	.000	-5366.227	-987.457
	1	1604.491(*)	345.133	.000	434.113	2774.870
	2	1482.104(*)	288.713	.000	503.049	2461.159
	3	1452.917(*)	234.665	.000	657.145	2248.690
	4	898.188(*)	186.025	.000	267.357	1529.018
	5	290.958	133.720	.868	-162.500	744.415
	7	-705.634(*)	143.066	.000	-1190.786	-220.482
	8	-920.086(*)	249.182	.017	-1765.085	-75.086
7	9	-1981.782(*)	353.862	.000	-3181.762	-781.802
	10	-3285.970(*)	503.234	.000	-4992.487	-1579.454
	11	-3569.962(*)	581.699	.000	-5542.560	-1597.363
	12	-2885.884(*)	577.825	.000	-4845.344	-926.424
	1	2310.125(*)	401.074	.000	950.045	3670.206
	2	2187.738(*)	348.286	.000	1006.666	3368.810
	3	2158.552(*)	301.580	.000	1135.865	3181.238
	4	1603.822(*)	256.728	.000	733.234	2474.410
	5	996.592(*)	216.755	.000	261.554	1731.630

8	6	705.634(*)	143.066	.000	220.482	1190.786
	8	-214.451	162.938	1.000	-766.990	338.087
	9	-1276.147(*)	269.613	.000	-2190.432	-361.862
	10	-2580.336(*)	424.979	.000	-4021.479	-1139.193
	11	-2864.327(*)	516.293	.000	-4615.125	-1113.530
	12	-2180.250(*)	517.234	.002	-3934.239	-426.261
	1	2524.577(*)	466.153	.000	943.808	4105.346
	2	2402.190(*)	418.786	.000	982.045	3822.334
	3	2373.003(*)	365.835	.000	1132.422	3613.584
	4	1818.273(*)	333.356	.000	687.833	2948.714
	5	1211.044(*)	303.081	.005	183.268	2238.819
	6	920.086(*)	249.182	.017	75.086	1765.085
9	7	214.451	162.938	1.000	-338.087	766.990
	9	-1061.696(*)	253.310	.002	-1920.695	-202.697
	10	-2365.885(*)	423.166	.000	-3800.881	-930.888
	11	-2649.876(*)	494.859	.000	-4327.990	-971.762
	12	-1965.799(*)	491.940	.005	-3634.013	-297.584
	1	3586.273(*)	572.048	.000	1646.404	5526.142
	2	3463.886(*)	527.876	.000	1673.809	5253.962
	3	3434.699(*)	491.344	.000	1768.506	5100.892
	4	2879.969(*)	450.872	.000	1351.019	4408.919
	5	2272.740(*)	406.942	.000	892.760	3652.719
	6	1981.782(*)	353.862	.000	781.802	3181.762
	7	1276.147(*)	269.613	.000	361.862	2190.432
10	8	1061.696(*)	253.310	.002	202.697	1920.695
	10	-1304.189(*)	224.398	.000	-2065.144	-543.234
	11	-1588.180(*)	376.806	.002	-2865.965	-310.395
	12	-904.103	379.380	.692	-2190.618	382.412
	1	4890.462(*)	699.200	.000	2519.409	7261.514
	2	4768.074(*)	662.537	.000	2521.349	7014.799
	3	4738.888(*)	634.773	.000	2586.312	6891.464
	4	4184.158(*)	598.062	.000	2156.072	6212.244
	5	3576.928(*)	553.601	.000	1699.615	5454.242

11	6	3285.970(*)	503.234	.000	1579.454	4992.487
	7	2580.336(*)	424.979	.000	1139.193	4021.479
	8	2365.885(*)	423.166	.000	930.888	3800.881
	9	1304.189(*)	224.398	.000	543.234	2065.144
	11	-283.991	275.340	1.000	-1217.695	649.712
	12	400.086	335.785	1.000	-738.593	1538.766
	1	5174.453(*)	759.719	.000	2598.173	7750.733
	2	5052.066(*)	723.757	.000	2597.737	7506.394
	3	5022.879(*)	698.699	.000	2653.524	7392.234
	4	4468.149(*)	671.120	.000	2192.319	6743.980
	5	3860.920(*)	637.935	.000	1697.619	6024.220
12	6	3569.962(*)	581.699	.000	1597.363	5542.560
	7	2864.327(*)	516.293	.000	1113.530	4615.125
	8	2649.876(*)	494.859	.000	971.762	4327.990
	9	1588.180(*)	376.806	.002	310.395	2865.965
	10	283.991	275.340	1.000	-649.712	1217.695
	12	684.078	286.573	.689	-287.720	1655.875
	1	4490.375(*)	790.310	.000	1810.359	7170.392
	2	4367.988(*)	750.420	.000	1823.241	6912.735
	3	4338.802(*)	719.176	.000	1900.006	6777.597
	4	3784.072(*)	684.625	.000	1462.444	6105.700
	5	3176.842(*)	645.627	.000	987.457	5366.227
	6	2885.884(*)	577.825	.000	926.424	4845.344
	7	2180.250(*)	517.234	.002	426.261	3934.239
	8	1965.799(*)	491.940	.005	297.584	3634.013
	9	904.103	379.380	.692	-382.412	2190.618
	10	-400.086	335.785	1.000	-1538.766	738.593
	11	-684.078	286.573	.689	-1655.875	287.720

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	20522.422	1990.106	16608.154	24436.690
Medium	6582.513	1415.282	3798.846	9366.180
High	7138.093	2013.114	3178.572	11097.614

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	13939.909(*)	2442.037	.000	8080.518	19799.300
	High	13384.329(*)	2830.751	.000	6592.264	20176.395
Medium	Low	-13939.909(*)	2442.037	.000	-19799.300	-8080.518
	High	-555.580	2460.823	.994	-6460.046	5348.886
High	Low	-13384.329(*)	2830.751	.000	-20176.395	-6592.264
	Medium	555.580	2460.823	.994	-5348.886	6460.046

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	124591859 29.682	2	6229592964.8 41	17.874	.000	.094	1.000

Error	120241465 718.255	345	348525987.58 9			
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The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

Total Environment Level year		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	17150.50	1671.653	13862.584	20438.413
	2	17293.67	1699.938	13950.119	20637.213
	3	17168.89	1691.720	13841.502	20496.269
	4	18188.22	1825.947	14596.830	21779.610
	5	19496.28	1907.041	15745.387	23247.166
	6	19674.51	1931.114	15876.275	23472.751
	7	20597.57	2024.456	16615.744	24579.405
	8	20012.48	1993.655	16091.237	23933.733
	9	22203.36	2299.175	17681.193	26725.522
	10	24703.09	2512.030	19762.264	29643.908
	11	25479.83	2493.180	20576.089	30383.579
	12	24300.67	2523.826	19336.648	29264.693
Medium	1	4997.29	1188.811	2659.056	7335.516
	2	5054.38	1208.926	2676.585	7432.172
	3	5129.36	1203.082	2763.065	7495.662
	4	5437.17	1298.539	2883.120	7991.219
	5	5580.16	1356.209	2912.684	8247.642
	6	5833.43	1373.329	3132.278	8534.580
	7	6496.60	1439.710	3664.889	9328.318
	8	7009.12	1417.806	4220.485	9797.746
	9	7918.61	1635.079	4702.631	11134.587
	10	8631.28	1786.453	5117.566	12144.986
	11	8505.25	1773.047	5017.904	11992.589



High	12	8397.52	1794.842	4867.307	11927.725
	1	5376.61	1690.979	2050.679	8702.532
	2	5543.51	1719.591	2161.305	8925.709
	3	5680.86	1711.278	2315.010	9046.714
	4	6017.91	1847.057	2385.000	9650.820
	5	6388.55	1929.088	2594.296	10182.804
	6	6829.92	1953.440	2987.771	10672.071
	7	7360.59	2047.861	3332.723	11388.452
	8	8076.52	2016.704	4109.938	12043.101
	9	8161.24	2325.756	3586.796	12735.687
	10	8861.41	2541.072	3863.469	13859.356
	11	9062.67	2522.003	4102.230	14023.105
	12	8297.33	2553.004	3275.917	13318.741

### ***General Linear Model with Level of Product for Sales***

#### **Between-Subjects Factors**

	Value Label	N
Total Product Level	1 Low	86
	2 Medium	174
	3 High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	12733190438.210	11	1157562767.110	36.006	.000	.095	1.000
	Greenhouse-Geisser	12733190438.210	1.631	7804606914.536	36.006	.000	.095	1.000

year * protot_lvl	Huynh-Feldt	12733190438.210	1.648	7727958776.862	36.006	.000	.095	1.000
	Lower-bound	12733190438.210	1	12733190438.210	36.006	.000	.095	1.000
	Sphericity Assumed	812271826.336	22	36921446.652	1.148	.285	.007	.870
	Greenhouse-Geisser	812271826.336	3.263	248934559.766	1.148	.330	.007	.324
	Huynh-Feldt	812271826.336	3.295	246489802.379	1.148	.331	.007	.326
	Lower-bound	812271826.336	2	406135913.168	1.148	.318	.007	.252
	Sphericity Assumed	122007231425.752	3795	32149468.096				
	Greenhouse-Geisser	122007231425.752	562.866	216760566.367				
	Huynh-Feldt	122007231425.752	568.449	214631786.030				
	Lower-bound	122007231425.752	345	353644149.060				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	11990159307.808	1	11990159307.808	45.762	.000	.117	1.000
	Quadratic	120060284.126	1	120060284.126	3.537	.061	.010	.466
	Cubic	297532751.435	1	297532751.435	21.057	.000	.058	.996
year * protot_lvl	Linear	575751954.465	2	287875977.232	1.099	.334	.006	.243
	Quadratic	99301636.423	2	49650818.211	1.463	.233	.008	.312
	Cubic	18142365.958	2	9071182.979	.642	.527	.004	.157
Error(year)	Linear	90393570561.691	345	262010349.454				

Quadratic	11711579304 .400	345	33946606.679				
Cubic	4874800683. 460	345	14129857.054				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_lvl	70336174752 .761	2	35168087376. 381	7.971	.000	.044	.954
Error	15220716450 22.468	345	4411801869.6 31				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9212.523	906.376	7429.805	10995.240
2	9300.672	923.673	7483.933	11117.410
3	9319.206	919.780	7510.123	11128.288
4	9887.035	993.349	7933.252	11840.817
5	10460.605	1041.652	8411.818	12509.392
6	10743.121	1052.806	8672.395	12813.847
7	11458.041	1102.174	9290.214	13625.867

8	11761.469	1079.283	9638.666	13884.272
9	12877.590	1244.495	10429.838	15325.343
10	14151.037	1362.811	11470.572	16831.501
11	14226.109	1361.619	11547.989	16904.228
12	13782.033	1369.824	11087.775	16476.291

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-88.149	78.264	1.000	-353.551	177.253
	3	-106.683	151.780	1.000	-621.383	408.017
	4	-674.512	237.655	.272	-1480.423	131.399
	5	-1248.082(*)	308.548	.004	-2294.398	-201.767
	6	-1530.599(*)	345.309	.001	-2701.576	-359.621
	7	-2245.518(*)	402.050	.000	-3608.910	-882.127
	8	-2548.947(*)	463.227	.000	-4119.794	-978.099
	9	-3665.068(*)	572.120	.000	-5605.182	-1724.954
	10	-4938.514(*)	703.248	.000	-7323.296	-2553.733
	11	-5013.586(*)	767.518	.000	-7616.314	-2410.858
	12	-4569.511(*)	793.551	.000	-7260.518	-1878.503
	12	-4569.511(*)	793.551	.000	-7260.518	-1878.503
2	1	88.149	78.264	1.000	-177.253	353.551
	3	-18.534	98.084	1.000	-351.145	314.077
	4	-586.363	178.206	.070	-1190.677	17.951
	5	-1159.933(*)	248.826	.000	-2003.726	-316.141
	6	-1442.450(*)	289.455	.000	-2424.020	-460.880
	7	-2157.369(*)	349.674	.000	-3343.148	-971.590
	8	-2460.798(*)	416.385	.000	-3872.800	-1048.795
	9	-3576.919(*)	528.207	.000	-5368.120	-1785.717
	10	-4850.365(*)	666.590	.000	-7110.835	-2589.895
	10	-4850.365(*)	666.590	.000	-7110.835	-2589.895

3	11	-4925.437(*)	731.689	.000	-7406.666	-2444.209
	12	-4481.362(*)	753.849	.000	-7037.737	-1924.986
	1	106.683	151.780	1.000	-408.017	621.383
	2	18.534	98.084	1.000	-314.077	351.145
	4	-567.829(*)	110.027	.000	-940.942	-194.716
	5	-1141.399(*)	190.793	.000	-1788.395	-494.403
	6	-1423.916(*)	236.708	.000	-2226.614	-621.217
	7	-2138.835(*)	304.019	.000	-3169.793	-1107.878
	8	-2442.264(*)	363.944	.000	-3676.433	-1208.094
	9	-3558.385(*)	492.367	.000	-5228.048	-1888.721
	10	-4831.831(*)	639.540	.000	-7000.574	-2663.089
	11	-4906.903(*)	707.562	.000	-7306.314	-2507.492
4	12	-4462.828(*)	723.411	.000	-6915.984	-2009.671
	1	674.512	237.655	.272	-131.399	1480.423
	2	586.363	178.206	.070	-17.951	1190.677
	3	567.829(*)	110.027	.000	194.716	940.942
	5	-573.570(*)	120.272	.000	-981.425	-165.716
	6	-856.087(*)	187.225	.000	-1490.984	-221.189
	7	-1571.006(*)	258.100	.000	-2446.247	-695.765
	8	-1874.435(*)	332.325	.000	-3001.380	-747.489
	9	-2990.556(*)	451.401	.000	-4521.300	-1459.811
	10	-4264.002(*)	601.581	.000	-6304.022	-2223.982
	11	-4339.074(*)	678.076	.000	-6638.495	-2039.653
	12	-3894.999(*)	687.888	.000	-6227.693	-1562.304
5	1	1248.082(*)	308.548	.004	201.767	2294.398
	2	1159.933(*)	248.826	.000	316.141	2003.726
	3	1141.399(*)	190.793	.000	494.403	1788.395
	4	573.570(*)	120.272	.000	165.716	981.425
	6	-282.516	133.820	.908	-736.314	171.282
	7	-997.436(*)	216.677	.000	-1732.207	-262.664
	8	-1300.864(*)	303.628	.002	-2330.495	-271.234
	9	-2416.985(*)	406.825	.000	-3796.569	-1037.402
	10	-3690.432(*)	555.111	.000	-5572.865	-1807.999

6	11	-3765.504(*)	641.975	.000	-5942.501	-1588.506
	12	-3321.428(*)	647.277	.000	-5516.407	-1126.450
	1	1530.599(*)	345.309	.001	359.621	2701.576
	2	1442.450(*)	289.455	.000	460.880	2424.020
	3	1423.916(*)	236.708	.000	621.217	2226.614
	4	856.087(*)	187.225	.000	221.189	1490.984
	5	282.516	133.820	.908	-171.282	736.314
	7	-714.919(*)	143.188	.000	-1200.484	-229.355
	8	-1018.348(*)	249.351	.004	-1863.920	-172.776
	9	-2134.469(*)	354.074	.000	-3335.170	-933.769
	10	-3407.915(*)	505.502	.000	-5122.123	-1693.708
	11	-3482.987(*)	586.712	.000	-5472.584	-1493.391
7	12	-3038.912(*)	580.207	.000	-5006.449	-1071.374
	1	2245.518(*)	402.050	.000	882.127	3608.910
	2	2157.369(*)	349.674	.000	971.590	3343.148
	3	2138.835(*)	304.019	.000	1107.878	3169.793
	4	1571.006(*)	258.100	.000	695.765	2446.247
	5	997.436(*)	216.677	.000	262.664	1732.207
	6	714.919(*)	143.188	.000	229.355	1200.484
	8	-303.428	163.927	.988	-859.320	252.463
	9	-1419.550(*)	269.501	.000	-2333.455	-505.644
	10	-2692.996(*)	426.941	.000	-4140.795	-1245.197
	11	-2768.068(*)	521.033	.000	-4534.941	-1001.195
	12	-2323.992(*)	519.162	.001	-4084.522	-563.463
8	1	2548.947(*)	463.227	.000	978.099	4119.794
	2	2460.798(*)	416.385	.000	1048.795	3872.800
	3	2442.264(*)	363.944	.000	1208.094	3676.433
	4	1874.435(*)	332.325	.000	747.489	3001.380
	5	1300.864(*)	303.628	.002	271.234	2330.495
	6	1018.348(*)	249.351	.004	172.776	1863.920
	7	303.428	163.927	.988	-252.463	859.320
	9	-1116.121(*)	255.964	.001	-1984.119	-248.124
	10	-2389.568(*)	429.097	.000	-3844.677	-934.458

9	11	-2464.640(*)	503.904	.000	-4173.428	-755.851
	12	-2020.564(*)	497.896	.004	-3708.976	-332.152
	1	3665.068(*)	572.120	.000	1724.954	5605.182
	2	3576.919(*)	528.207	.000	1785.717	5368.120
	3	3558.385(*)	492.367	.000	1888.721	5228.048
	4	2990.556(*)	451.401	.000	1459.811	4521.300
	5	2416.985(*)	406.825	.000	1037.402	3796.569
	6	2134.469(*)	354.074	.000	933.769	3335.170
	7	1419.550(*)	269.501	.000	505.644	2333.455
	8	1116.121(*)	255.964	.001	248.124	1984.119
	10	-1273.446(*)	227.406	.000	-2044.600	-502.292
	11	-1348.518(*)	381.724	.030	-2642.982	-54.054
10	12	-904.443	381.459	.704	-2198.005	389.120
	1	4938.514(*)	703.248	.000	2553.733	7323.296
	2	4850.365(*)	666.590	.000	2589.895	7110.835
	3	4831.831(*)	639.540	.000	2663.089	7000.574
	4	4264.002(*)	601.581	.000	2223.982	6304.022
	5	3690.432(*)	555.111	.000	1807.999	5572.865
	6	3407.915(*)	505.502	.000	1693.708	5122.123
	7	2692.996(*)	426.941	.000	1245.197	4140.795
	8	2389.568(*)	429.097	.000	934.458	3844.677
	9	1273.446(*)	227.406	.000	502.292	2044.600
	11	-75.072	275.489	1.000	-1009.281	859.138
	12	369.004	335.660	1.000	-769.253	1507.260
11	1	5013.586(*)	767.518	.000	2410.858	7616.314
	2	4925.437(*)	731.689	.000	2444.209	7406.666
	3	4906.903(*)	707.562	.000	2507.492	7306.314
	4	4339.074(*)	678.076	.000	2039.653	6638.495
	5	3765.504(*)	641.975	.000	1588.506	5942.501
	6	3482.987(*)	586.712	.000	1493.391	5472.584
	7	2768.068(*)	521.033	.000	1001.195	4534.941
	8	2464.640(*)	503.904	.000	755.851	4173.428
	9	1348.518(*)	381.724	.030	54.054	2642.982

12	10	75.072	275.489	1.000	-859.138	1009.281
	12	444.076	286.802	1.000	-528.499	1416.650
	1	4569.511(*)	793.551	.000	1878.503	7260.518
	2	4481.362(*)	753.849	.000	1924.986	7037.737
	3	4462.828(*)	723.411	.000	2009.671	6915.984
	4	3894.999(*)	687.888	.000	1562.304	6227.693
	5	3321.428(*)	647.277	.000	1126.450	5516.407
	6	3038.912(*)	580.207	.000	1071.374	5006.449
	7	2323.992(*)	519.162	.001	563.463	4084.522
	8	2020.564(*)	497.896	.004	332.152	3708.976
	9	904.443	381.459	.704	-389.120	2198.005
	10	-369.004	335.660	1.000	-1507.260	769.253
	11	-444.076	286.802	1.000	-1416.650	528.499

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	16823.794	2067.608	12757.091	20890.497
Medium	6754.725	1453.593	3895.706	9613.744
High	10716.341	2043.977	6696.116	14736.565

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Product Level	(J) Total Product Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	10069.070(*)	2527.436	.000	4004.773	16133.366
	High	6107.454	2907.378	.105	-868.469	13083.377
Medium	Low	-	2527.436	.000	-16133.366	-4004.773
	High	10069.070(*)	2508.142	.307	-9979.617	2056.386
High	Low	-3961.616	2907.378	.105	-13083.377	868.469
	Medium	-6107.454	2508.142	.307	-2056.386	9979.617

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	586134789 6.064	2	2930673948.0 32	7.971	.000	.044	.954
Error	126839303 751.873	345	367650155.80 3				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Product Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Product Level	year			Lower Bound	Upper Bound
Low	1	14934.34	1729.605	11532.443	18336.239
	2	14712.51	1762.612	11245.690	18179.328
	3	14432.79	1755.184	10980.586	17885.004
	4	14939.88	1895.573	11211.548	18668.218
	5	15586.77	1987.748	11677.137	19496.395
	6	15918.07	2009.033	11966.577	19869.566

Medium	7	16784.41	2103.241	12647.627	20921.203
	8	16567.99	2059.558	12517.120	20618.861
	9	18269.22	2374.826	13598.257	22940.178
	10	20155.73	2600.605	15040.694	25270.767
	11	20112.39	2598.330	15001.829	25222.953
	12	19471.42	2613.988	14330.065	24612.782
	1	5103.75	1215.967	2712.108	7495.389
	2	5256.90	1239.172	2819.623	7694.186
	3	5354.89	1233.949	2927.881	7781.902
	4	5626.44	1332.647	3005.304	8247.576
	5	5879.18	1397.449	3130.593	8627.775
	6	6155.80	1412.413	3377.780	8933.828
High	7	6798.28	1478.644	3889.991	9706.573
	8	7015.97	1447.934	4168.083	9863.860
	9	7795.99	1669.577	4512.155	11079.817
	10	8630.61	1828.307	5034.584	12226.645
	11	9140.23	1826.707	5547.346	12733.115
	12	8298.64	1837.715	4684.106	11913.177
	1	7599.48	1709.838	4236.460	10962.496
	2	7932.60	1742.468	4505.404	11359.798
	3	8169.93	1735.124	4757.177	11582.684
	4	9094.78	1873.909	5409.057	12780.505
	5	9915.86	1965.030	6050.919	13780.811
	6	10155.49	1986.072	6249.155	14061.821
	7	10791.43	2079.203	6701.917	14880.935
	8	11700.45	2036.020	7695.872	15705.019
	9	12567.57	2347.685	7949.992	17185.144
	10	13666.76	2570.883	8610.188	18723.342
	11	13425.70	2568.634	8373.551	18477.858
	12	13576.03	2584.113	8493.436	18658.632

## General Linear Model with Level of Corporate Governance for Sales

### Between-Subjects Factors

		Value Label	N
Total Corp Gov Level	1	Low	94
	2	Medium	216
	3	High	38

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	6145838267.220	11	558712569.748	17.652	.000	.049	1.000
	Greenhouse-Geisser	6145838267.220	1.649	3728037975.685	17.652	.000	.049	.999
	Huynh-Feldt	6145838267.220	1.665	3691107130.638	17.652	.000	.049	.999
	Lower-bound	6145838267.220	1	6145838267.220	17.652	.000	.049	.987
year * cgovtot_lvi	Sphericity Assumed	2699532158.973	22	122706007.226	3.877	.000	.022	1.000
	Greenhouse-Geisser	2699532158.973	3.297	818762060.411	3.877	.007	.022	.851
	Huynh-Feldt	2699532158.973	3.330	810651205.591	3.877	.007	.022	.854
	Lower-bound	2699532158.973	2	1349766079.487	3.877	.022	.022	.699
Error(year)	Sphericity Assumed	120119971093.114	3795	31652166.296				
	Greenhouse-Geisser	120119971093.114	568.748	211200685.922				
	Huynh-Feldt	120119971093.114	574.439	209108480.892				
	Lower-bound	120119971093.114	345	348173829.256				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	5767968379.227	1	5767968379.227	22.485	.000	.061	.997
	Quadratic	45981000.939	1	45981000.939	1.345	.247	.004	.212
	Cubic	149055390.175	1	149055390.175	10.637	.001	.030	.902
year * cgovtot_lvl	Linear	2467923130.680	2	1233961565.340	4.810	.009	.027	.796
	Quadratic	14520611.629	2	7260305.815	.212	.809	.001	.083
	Cubic	58447717.209	2	29223858.605	2.085	.126	.012	.428
Error(year)	Linear	88501399385.476	345	256525795.320				
	Quadratic	11796360329.194	345	34192348.780				
	Cubic	4834495332.207	345	14013029.948				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	16560797226 1.505	2	82803986130. 753	20.022	.000	.104	1.000
Error	14267998475 13.725	345	4135651731.9 24				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
1	7888.448	1063.733	5796.230	9980.666
2	8000.400	1080.629	5874.951	10125.850
3	8011.632	1075.156	5896.946	10126.318
4	8466.549	1161.614	6181.812	10751.287
5	8977.361	1214.181	6589.233	11365.490
6	9226.344	1225.660	6815.638	11637.050
7	9844.204	1281.315	7324.033	12364.376
8	10010.530	1255.194	7541.734	12479.327
9	10971.743	1450.597	8118.616	13824.871
10	12075.710	1588.374	8951.595	15199.825
11	12131.637	1589.023	9006.245	15257.030
12	11669.692	1602.066	8518.646	14820.738

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-111.952	95.010	1.000	-434.141	210.236
	3	-123.184	184.527	1.000	-748.933	502.565
	4	-578.101	287.659	.953	-1553.581	397.378
	5	-1088.913	371.086	.210	-2347.302	169.476
	6	-1337.896	414.134	.086	-2742.265	66.473
	7	-1955.756(*)	479.483	.004	-3581.730	-329.782
	8	-2122.082(*)	557.459	.011	-4012.479	-231.685
	9	-3083.295(*)	682.284	.001	-5396.985	-769.606
	10	-4187.262(*)	834.884	.000	-7018.435	-1356.089
	11	-4243.189(*)	913.936	.000	-7342.434	-1143.944
	12	-3781.244(*)	948.113	.005	-6996.387	-566.101
2	1	111.952	95.010	1.000	-210.236	434.141

3	3	-11.232	118.539	1.000	-413.209	390.745
	4	-466.149	215.404	.876	-1196.603	264.305
	5	-976.961	298.766	.075	-1990.106	36.184
	6	-1225.944(*)	346.503	.030	-2400.967	-50.920
	7	-1843.804(*)	416.127	.001	-3254.930	-432.679
	8	-2010.130(*)	500.521	.005	-3707.446	-312.814
	9	-2971.343(*)	629.342	.000	-5105.502	-837.185
	10	-4075.310(*)	791.173	.000	-6758.253	-1392.367
	11	-4131.237(*)	871.162	.000	-7085.431	-1177.043
	12	-3669.292(*)	900.550	.004	-6723.143	-615.441
	1	123.184	184.527	1.000	-502.565	748.933
	2	11.232	118.539	1.000	-390.745	413.209
4	4	-454.917(*)	132.316	.042	-903.613	-6.222
	5	-965.729(*)	227.064	.002	-1735.725	-195.734
	6	-1214.712(*)	281.247	.001	-2168.446	-260.978
	7	-1832.572(*)	359.359	.000	-3051.193	-613.952
	8	-1998.898(*)	435.938	.000	-3477.206	-520.591
	9	-2960.111(*)	584.828	.000	-4943.320	-976.903
	10	-4064.078(*)	757.534	.000	-6632.950	-1495.206
	11	-4120.005(*)	841.378	.000	-6973.200	-1266.811
	12	-3658.060(*)	863.049	.002	-6584.742	-731.378
	1	578.101	287.659	.953	-397.378	1553.581
	2	466.149	215.404	.876	-264.305	1196.603
	3	454.917(*)	132.316	.042	6.222	903.613
5	5	-510.812(*)	142.548	.025	-994.206	-27.418
	6	-759.795(*)	222.677	.047	-1514.914	-4.675
	7	-1377.655(*)	305.632	.001	-2414.082	-341.228
	8	-1543.981(*)	398.364	.008	-2894.870	-193.091
	9	-2505.194(*)	536.788	.000	-4325.493	-684.895
	10	-3609.161(*)	713.544	.000	-6028.856	-1189.466
	11	-3665.088(*)	807.733	.001	-6404.188	-925.988
	12	-3203.143(*)	821.447	.008	-5988.749	-417.536
	1	1088.913	371.086	.210	-169.476	2347.302

6	2	976.961	298.766	.075	-36.184	1990.106
	3	965.729(*)	227.064	.002	195.734	1735.725
	4	510.812(*)	142.548	.025	27.418	994.206
	6	-248.983	160.779	1.000	-794.201	296.235
	7	-866.843	259.115	.058	-1745.526	11.840
	8	-1033.169	365.023	.278	-2270.996	204.658
	9	-1994.382(*)	485.803	.003	-3641.787	-346.978
	10	-3098.349(*)	660.850	.000	-5339.353	-857.344
	11	-3154.276(*)	767.113	.003	-5755.628	-552.923
	12	-2692.331(*)	774.793	.037	-5319.730	-64.932
	1	1337.896	414.134	.086	-66.473	2742.265
	2	1225.944(*)	346.503	.030	50.920	2400.967
7	3	1214.712(*)	281.247	.001	260.978	2168.446
	4	759.795(*)	222.677	.047	4.675	1514.914
	5	248.983	160.779	1.000	-296.235	794.201
	7	-617.861(*)	171.050	.023	-1197.907	-37.814
	8	-784.186	300.269	.464	-1802.426	234.053
	9	-1745.400(*)	422.962	.003	-3179.704	-311.095
	10	-2849.366(*)	601.825	.000	-4890.211	-808.521
	11	-2905.293(*)	701.130	.003	-5282.892	-527.695
	12	-2443.348(*)	694.650	.032	-4798.972	-87.724
	1	1955.756(*)	479.483	.004	329.782	3581.730
	2	1843.804(*)	416.127	.001	432.679	3254.930
	3	1832.572(*)	359.359	.000	613.952	3051.193
8	4	1377.655(*)	305.632	.001	341.228	2414.082
	5	866.843	259.115	.058	-11.840	1745.526
	6	617.861(*)	171.050	.023	37.814	1197.907
	8	-166.326	198.358	1.000	-838.977	506.326
	9	-1127.539(*)	323.090	.035	-2223.167	-31.911
	10	-2231.506(*)	509.436	.001	-3959.053	-503.959
	11	-2287.433(*)	623.820	.019	-4402.868	-171.998
	12	-1825.488	622.992	.213	-3938.114	287.139
	1	2122.082(*)	557.459	.011	231.685	4012.479

9	2	2010.130(*)	500.521	.005	312.814	3707.446
	3	1998.898(*)	435.938	.000	520.591	3477.206
	4	1543.981(*)	398.364	.008	193.091	2894.870
	5	1033.169	365.023	.278	-204.658	2270.996
	6	784.186	300.269	.464	-234.053	1802.426
	7	166.326	198.358	1.000	-506.326	838.977
	9	-961.213	305.729	.113	-1997.969	75.543
	10	-2065.180(*)	511.133	.004	-3798.481	-331.879
	11	-2121.107(*)	603.337	.032	-4167.081	-75.133
	12	-1659.162	596.491	.315	-3681.919	363.595
	1	3083.295(*)	682.284	.001	769.606	5396.985
	2	2971.343(*)	629.342	.000	837.185	5105.502
10	3	2960.111(*)	584.828	.000	976.903	4943.320
	4	2505.194(*)	536.788	.000	684.895	4325.493
	5	1994.382(*)	485.803	.003	346.978	3641.787
	6	1745.400(*)	422.962	.003	311.095	3179.704
	7	1127.539(*)	323.090	.035	31.911	2223.167
	8	961.213	305.729	.113	-75.543	1997.969
	10	-1103.967(*)	271.275	.004	-2023.885	-184.048
	11	-1159.894	458.714	.546	-2715.436	395.649
	12	-697.949	458.622	1.000	-2253.181	857.284
	1	4187.262(*)	834.884	.000	1356.089	7018.435
	2	4075.310(*)	791.173	.000	1392.367	6758.253
	3	4064.078(*)	757.534	.000	1495.206	6632.950
11	4	3609.161(*)	713.544	.000	1189.466	6028.856
	5	3098.349(*)	660.850	.000	857.344	5339.353
	6	2849.366(*)	601.825	.000	808.521	4890.211
	7	2231.506(*)	509.436	.001	503.959	3959.053
	8	2065.180(*)	511.133	.004	331.879	3798.481
	9	1103.967(*)	271.275	.004	184.048	2023.885
	11	-55.927	331.463	1.000	-1179.948	1068.094
	12	406.018	403.423	1.000	-962.030	1774.066
	1	4243.189(*)	913.936	.000	1143.944	7342.434



12	2	4131.237(*)	871.162	.000	1177.043	7085.431
	3	4120.005(*)	841.378	.000	1266.811	6973.200
	4	3665.088(*)	807.733	.001	925.988	6404.188
	5	3154.276(*)	767.113	.003	552.923	5755.628
	6	2905.293(*)	701.130	.003	527.695	5282.892
	7	2287.433(*)	623.820	.019	171.998	4402.868
	8	2121.107(*)	603.337	.032	75.133	4167.081
	9	1159.894	458.714	.546	-395.649	2715.436
	10	55.927	331.463	1.000	-1068.094	1179.948
	12	461.945	346.047	1.000	-711.533	1635.423
	1	3781.244(*)	948.113	.005	566.101	6996.387
	2	3669.292(*)	900.550	.004	615.441	6723.143
	3	3658.060(*)	863.049	.002	731.378	6584.742
	4	3203.143(*)	821.447	.008	417.536	5988.749
	5	2692.331(*)	774.793	.037	64.932	5319.730
	6	2443.348(*)	694.650	.032	87.724	4798.972
	7	1825.488	622.992	.213	-287.139	3938.114
	8	1659.162	596.491	.315	-363.595	3681.919
	9	697.949	458.622	1.000	-857.284	2253.181
	10	-406.018	403.423	1.000	-1774.066	962.030
	11	-461.945	346.047	1.000	-1635.423	711.533

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Corp Gov Level

### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	20193.674	1914.774	16427.575	23959.773

Medium	7417.164	1263.149	4932.723	9901.606
High	1707.725	3011.546	-4215.577	7631.027

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Corp Gov Level	(J) Total Corp Gov Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	12776.509(*)	2293.884	.000	7272.595	18280.423
	High	18485.949(*)	3568.721	.000	9923.208	27048.691
Medium	Low	-12776.509(*)	2293.884	.000	-18280.423	-7272.595
	High	5709.440	3265.724	.225	-2126.296	13545.175
High	Low	-18485.949(*)	3568.721	.000	-27048.691	-9923.208
	Medium	-5709.440	3265.724	.225	-13545.175	2126.296

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	138006643	2	6900332177.5	20.022	.000	.104	1.000
	55.126		63				
Error	118899987	345	344637644.32				
	292.811		7				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Corp Gov Level \* year

Measure: MEASURE\_1

Total Corp Gov Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	16645.64	1614.092	13470.939	19820.337
	2	16873.80	1639.729	13648.676	20098.924
	3	16764.63	1631.425	13555.838	19973.421
	4	17675.20	1762.616	14208.371	21142.022
	5	18884.77	1842.379	15261.062	22508.481
	6	19335.62	1859.797	15677.648	22993.584
	7	20478.67	1944.247	16654.604	24302.743
	8	20394.00	1904.613	16647.884	24140.111
	9	22453.62	2201.114	18124.324	26782.907
	10	24670.24	2410.174	19929.758	29410.726
	11	24365.39	2411.159	19622.968	29107.813
	12	23782.51	2430.951	19001.166	28563.864
Medium	1	5672.59	1064.793	3578.285	7766.893
	2	5736.34	1081.706	3608.767	7863.903
	3	5841.46	1076.228	3724.667	7958.255
	4	6231.31	1162.772	3944.297	8518.327
	5	6489.16	1215.391	4098.646	8879.664
	6	6736.79	1226.882	4323.685	9149.903
	7	7342.48	1282.592	4819.794	9865.162
	8	7820.23	1256.446	5348.974	10291.489
	9	8569.77	1452.043	5713.798	11425.741
	10	9436.13	1589.957	6308.897	12563.356
	11	9854.27	1590.607	6725.757	12982.773
	12	9275.46	1603.663	6121.270	12429.645
High	1	1347.12	2538.636	-3646.034	6340.268
	2	1391.07	2578.958	-3681.394	6463.525
	3	1428.81	2565.898	-3617.965	6475.577
	4	1493.14	2772.234	-3959.467	6945.745
	5	1558.16	2897.685	-4141.195	7257.509
	6	1606.62	2925.080	-4146.612	7359.855

7	1711.46	3057.902	-4303.016	7725.939
8	1817.36	2995.565	-4074.507	7709.231
9	1891.85	3461.901	-4917.242	8700.933
10	2120.76	3790.710	-5335.049	9576.571
11	2175.26	3792.260	-5283.603	9634.114
12	1951.10	3823.387	-5568.977	9471.186

### ***General Linear Model with Level of Total CSR for Sales***

#### **Between-Subjects Factors**

	Value Label	N
Total CSR Level	1 Low	87
	2 Medium	173
	3 High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	12071452697.516	11	1097404790.684	34.040	.000	.090	1.000
	Greenhouse-Geisser	12071452697.516	1.629	7409573846.842	34.040	.000	.090	1.000
	Huynh-Feldt	12071452697.516	1.645	7336892052.799	34.040	.000	.090	1.000
	Lower-bound	12071452697.516	1	12071452697.516	34.040	.000	.090	1.000
year * CSRtot_level	Sphericity Assumed	474956561.894	22	21588934.632	.670	.873	.004	.576
	Greenhouse-Geisser	474956561.894	3.258	145766454.444	.670	.583	.004	.199
	Huynh-Feldt	474956561.894	3.291	144336606.02	.670	.584	.004	.200

Error(year)	Lower-bound	94 474956561.8 94	2	9 237478280.94 7	.670	.513	.004	.162
	Sphericity Assumed	12234454669 0.193		32238352.224				
	Greenhouse-Geisser	12234454669 0.193	3795	217670319.58 7				
	Huynh-Feldt	12234454669 0.193	562.064	215535153.69 7				
	Lower-bound	12234454669 0.193	567.632	354621874.46 5				
			345					

a Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	11377215747.343	1	11377215747.343	43.244	.000	.111	1.000
	Quadratic	149009311.546	1	149009311.546	4.392	.037	.013	.552
	Cubic	245669294.419	1	245669294.419	17.369	.000	.048	.986
year * CSRtot_level	Linear	201738760.849	2	100869380.424	.383	.682	.002	.112
	Quadratic	106605318.106	2	53302659.053	1.571	.209	.009	.333
	Cubic	13167524.038	2	6583762.019	.465	.628	.003	.126
Error(year)	Linear	90767583755.307	345	263094445.668				
	Quadratic	11704275622.717	345	33925436.588				
	Cubic	4879775525.379	345	14144276.885				

a Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRotot_level	34572916306.576	2	17286458153.288	3.828	.023	.022	.693
Error	1557834903468.654	345	4515463488.315				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9020.961	919.563	7212.305	10829.618
2	9095.355	935.628	7255.103	10935.608
3	9111.576	930.637	7281.140	10942.013
4	9651.519	1003.449	7677.872	11625.166
5	10190.506	1051.654	8122.047	12258.966
6	10492.860	1062.163	8403.729	12581.991
7	11178.328	1112.444	8990.302	13366.354
8	11401.641	1090.509	9256.758	13546.523
9	12541.939	1254.871	10073.779	15010.099
10	13726.815	1375.456	11021.480	16432.149
11	13926.067	1370.372	11230.733	16621.402
12	13507.171	1377.441	10797.932	16216.409

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-74.394	78.412	1.000	-340.295	191.507
	3	-90.615	152.246	1.000	-606.896	425.667
	4	-630.558	238.416	.433	-1439.049	177.933
	5	-1169.545(*)	310.302	.013	-2221.810	-117.280
	6	-1471.899(*)	346.593	.002	-2647.230	-296.567
	7	-2157.366(*)	402.761	.000	-3523.167	-791.566
	8	-2380.679(*)	464.506	.000	-3955.863	-805.495
	9	-3520.978(*)	572.873	.000	-5463.644	-1578.311
	10	-4705.853(*)	704.442	.000	-7094.684	-2317.023
	11	-4905.106(*)	766.936	.000	-7505.859	-2304.353
	12	-4486.209(*)	793.604	.000	-7177.397	-1795.021
2	1	74.394	78.412	1.000	-191.507	340.295
	3	-16.221	98.244	1.000	-349.375	316.934
	4	-556.164	178.696	.124	-1162.138	49.810
	5	-1095.151(*)	250.178	.001	-1943.527	-246.775
	6	-1397.505(*)	290.178	.000	-2381.526	-413.484
	7	-2082.973(*)	350.148	.000	-3270.359	-895.586
	8	-2306.285(*)	417.566	.000	-3722.292	-890.279
	9	-3446.584(*)	528.904	.000	-5240.150	-1653.018
	10	-4631.460(*)	667.905	.000	-6896.388	-2366.531
	11	-4830.712(*)	730.873	.000	-7309.174	-2352.250
	12	-4411.815(*)	753.492	.000	-6966.979	-1856.651
3	1	90.615	152.246	1.000	-425.667	606.896
	2	16.221	98.244	1.000	-316.934	349.375
	4	-539.943(*)	110.454	.000	-914.504	-165.382
	5	-1078.930(*)	191.934	.000	-1729.796	-428.065
	6	-1381.284(*)	237.013	.000	-2185.017	-577.551
	7	-2066.752(*)	304.441	.000	-3099.140	-1034.363

4	8	-2290.064(*)	365.194	.000	-3528.473	-1051.655
	9	-3430.363(*)	493.161	.000	-5102.718	-1758.009
	10	-4615.239(*)	641.133	.000	-6789.382	-2441.095
	11	-4814.491(*)	706.679	.000	-7210.909	-2418.074
	12	-4395.595(*)	722.835	.000	-6846.796	-1944.393
	1	630.558	238.416	.433	-177.933	1439.049
	2	556.164	178.696	.124	-49.810	1162.138
	3	539.943(*)	110.454	.000	165.382	914.504
	5	-538.987(*)	120.140	.001	-946.392	-131.583
	6	-841.341(*)	186.432	.001	-1473.551	-209.131
	7	-1526.809(*)	257.835	.000	-2401.153	-652.464
	8	-1750.121(*)	332.579	.000	-2877.927	-622.315
5	9	-2890.420(*)	451.593	.000	-4421.816	-1359.025
	10	-4075.296(*)	602.540	.000	-6118.567	-2032.024
	11	-4274.548(*)	676.716	.000	-6569.358	-1979.738
	12	-3855.651(*)	686.685	.000	-6184.267	-1527.036
	1	1169.545(*)	310.302	.013	117.280	2221.810
	2	1095.151(*)	250.178	.001	246.775	1943.527
	3	1078.930(*)	191.934	.000	428.065	1729.796
	4	538.987(*)	120.140	.001	131.583	946.392
	6	-302.354	133.473	.800	-754.973	150.266
	7	-987.821(*)	216.410	.000	-1721.687	-253.956
	8	-1211.134(*)	302.274	.005	-2236.176	-186.093
	9	-2351.433(*)	406.277	.000	-3729.156	-973.710
6	10	-3536.308(*)	555.621	.000	-5420.472	-1652.145
	11	-3735.561(*)	640.903	.000	-5908.926	-1562.196
	12	-3316.664(*)	646.029	.000	-5507.410	-1125.918
	1	1471.899(*)	346.593	.002	296.567	2647.230
	2	1397.505(*)	290.178	.000	413.484	2381.526
	3	1381.284(*)	237.013	.000	577.551	2185.017
	4	841.341(*)	186.432	.001	209.131	1473.551
	5	302.354	133.473	.800	-150.266	754.973
	7	-685.468(*)	142.941	.000	-1170.195	-200.740



7	8	-908.781(*)	247.345	.018	-1747.552	-70.009
	9	-2049.079(*)	353.507	.000	-3247.854	-850.305
	10	-3233.955(*)	506.239	.000	-4950.659	-1517.251
	11	-3433.207(*)	585.924	.000	-5420.133	-1446.282
	12	-3014.311(*)	579.354	.000	-4978.955	-1049.666
	1	2157.366(*)	402.761	.000	791.566	3523.167
	2	2082.973(*)	350.148	.000	895.586	3270.359
	3	2066.752(*)	304.441	.000	1034.363	3099.140
	4	1526.809(*)	257.835	.000	652.464	2401.153
	5	987.821(*)	216.410	.000	253.956	1721.687
	6	685.468(*)	142.941	.000	200.740	1170.195
	8	-223.313	162.763	1.000	-775.258	328.633
8	9	-1363.612(*)	269.200	.000	-2276.494	-450.729
	10	-2548.487(*)	427.688	.000	-3998.816	-1098.158
	11	-2747.740(*)	519.879	.000	-4510.699	-984.780
	12	-2328.843(*)	517.981	.001	-4085.365	-572.320
	1	2380.679(*)	464.506	.000	805.495	3955.863
	2	2306.285(*)	417.566	.000	890.279	3722.292
	3	2290.064(*)	365.194	.000	1051.655	3528.473
	4	1750.121(*)	332.579	.000	622.315	2877.927
	5	1211.134(*)	302.274	.005	186.093	2236.176
	6	908.781(*)	247.345	.018	70.009	1747.552
	7	223.313	162.763	1.000	-328.633	775.258
	9	-1140.299(*)	255.437	.001	-2006.512	-274.086
9	10	-2325.174(*)	429.369	.000	-3781.206	-869.142
	11	-2524.427(*)	501.433	.000	-4224.834	-824.020
	12	-2105.530(*)	494.576	.002	-3782.683	-428.377
	1	3520.978(*)	572.873	.000	1578.311	5463.644
	2	3446.584(*)	528.904	.000	1653.018	5240.150
	3	3430.363(*)	493.161	.000	1758.009	5102.718
	4	2890.420(*)	451.593	.000	1359.025	4421.816
	5	2351.433(*)	406.277	.000	973.710	3729.156
	6	2049.079(*)	353.507	.000	850.305	3247.854

10	7	1363.612(*)	269.200	.000	450.729	2276.494
	8	1140.299(*)	255.437	.001	274.086	2006.512
	10	-1184.875(*)	227.829	.000	-1957.464	-412.287
	11	-1384.128(*)	379.696	.020	-2671.713	-96.543
	12	-965.231	379.155	.529	-2250.981	320.518
	1	4705.853(*)	704.442	.000	2317.023	7094.684
	2	4631.460(*)	667.905	.000	2366.531	6896.388
	3	4615.239(*)	641.133	.000	2441.095	6789.382
	4	4075.296(*)	602.540	.000	2032.024	6118.567
	5	3536.308(*)	555.621	.000	1652.145	5420.472
	6	3233.955(*)	506.239	.000	1517.251	4950.659
	7	2548.487(*)	427.688	.000	1098.158	3998.816
11	8	2325.174(*)	429.369	.000	869.142	3781.206
	9	1184.875(*)	227.829	.000	412.287	1957.464
	11	-199.253	274.689	1.000	-1130.748	732.243
	12	219.644	334.161	1.000	-913.526	1352.815
	1	4905.106(*)	766.936	.000	2304.353	7505.859
	2	4830.712(*)	730.873	.000	2352.250	7309.174
	3	4814.491(*)	706.679	.000	2418.074	7210.909
	4	4274.548(*)	676.716	.000	1979.738	6569.358
	5	3735.561(*)	640.903	.000	1562.196	5908.926
	6	3433.207(*)	585.924	.000	1446.282	5420.133
	7	2747.740(*)	519.879	.000	984.780	4510.699
	8	2524.427(*)	501.433	.000	824.020	4224.834
12	9	1384.128(*)	379.696	.020	96.543	2671.713
	10	199.253	274.689	1.000	-732.243	1130.748
	12	418.897	286.309	1.000	-552.005	1389.798
	1	4486.209(*)	793.604	.000	1795.021	7177.397
	2	4411.815(*)	753.492	.000	1856.651	6966.979
	3	4395.595(*)	722.835	.000	1944.393	6846.796
	4	3855.651(*)	686.685	.000	1527.036	6184.267
	5	3316.664(*)	646.029	.000	1125.918	5507.410
	6	3014.311(*)	579.354	.000	1049.666	4978.955

7	2328.843(*)	517.981	.001	572.320	4085.365
8	2105.530(*)	494.576	.002	428.377	3782.683
9	965.231	379.155	.529	-320.518	2250.981
10	-219.644	334.161	1.000	-1352.815	913.526
11	-418.897	286.309	1.000	-1389.798	552.005

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	14137.936	2079.701	10047.447	18228.425
Medium	7467.766	1474.815	4567.006	10368.526
High	11855.483	2067.851	7788.302	15922.664

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total CSR Level	(J) Total CSR Level				Upper Bound	Lower Bound
Low	Medium	6670.170(*)	2549.556	.028	552.800	12787.540
	High	2282.452	2932.774	.821	-4754.406	9319.311
Medium	Low	-6670.170(*)	2549.556	.028	-12787.540	-552.800
	High	-4387.717	2539.899	.234	-10481.917	1706.482
High	Low	-2282.452	2932.774	.821	-9319.311	4754.406
	Medium	4387.717	2539.899	.234	-1706.482	10481.917

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2881076358.882	2	1440538179.441	3.828	.023	.022	.693
Error	129819575289.055	345	376288624.026				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total CSR Level	year			Lower Bound	Upper Bound
Low	1	12122.08	1747.713	8684.565	15559.594
	2	11944.20	1778.245	8446.638	15441.769
	3	11761.70	1768.760	8282.789	15240.609
	4	12253.55	1907.145	8502.457	16004.646
	5	13157.72	1998.763	9226.427	17089.016
	6	13615.74	2018.737	9645.159	17586.322
	7	14152.28	2114.300	9993.739	18310.821
	8	13593.27	2072.610	9516.728	17669.813
	9	15273.09	2384.995	10582.125	19964.047
	10	16858.73	2614.178	11716.997	22000.462
	11	17658.87	2604.515	12536.142	22781.596
	12	17264.00	2617.950	12114.846	22413.149
Medium	1	5549.98	1239.387	3112.270	7987.680
	2	5750.78	1261.038	3270.492	8231.072

High	3	5861.54	1254.312	3394.480	8328.601
	4	6216.75	1352.447	3556.670	8876.828
	5	6575.29	1417.418	3787.427	9363.162
	6	6791.15	1431.583	3975.422	9606.878
	7	7518.59	1499.351	4569.568	10467.606
	8	7986.18	1469.786	5095.314	10877.053
	9	8680.02	1691.313	5353.432	12006.599
	10	9773.82	1853.838	6127.573	13420.067
	11	9914.17	1846.985	6281.405	13546.943
	12	8994.92	1856.513	5343.410	12646.426
	1	9390.83	1737.755	5972.903	12808.757
	2	9591.08	1768.112	6113.444	13068.716
	3	9711.49	1758.681	6252.402	13170.575
	4	10484.26	1896.278	6754.537	14213.977
	5	10838.50	1987.374	6929.610	14747.397
	6	11071.69	2007.234	7123.732	15019.646
	7	11864.12	2102.253	7729.271	15998.962
	8	12625.467	2060.800	8572.153	16678.781
	9	13672.717	2371.405	9008.485	18336.948
	10	14547.895	2599.282	9435.460	19660.330
	11	14205.159	2589.675	9111.621	19298.696
	12	14262.596	2603.033	9142.785	19382.407

## APPENDIX P

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for ROA Annual Growth

#### *General Linear Model with Level of Community Relations for ROA Annual Growth*

##### Between-Subjects Factors

		Value Label	N
Total Community Level	1	Low	172
	2	Medium	81
	3	High	68

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2424.614	10	242.461	6.751	.000	.021	1.000
	Greenhouse-Geisser	2424.614	7.068	343.062	6.751	.000	.021	1.000
	Huynh-Feldt	2424.614	7.290	332.596	6.751	.000	.021	1.000
	Lower-bound	2424.614	1.000	2424.614	6.751	.010	.021	.736
year * comtot_ivl	Sphericity Assumed	1188.466	20	59.423	1.654	.034	.010	.965
	Greenhouse-Geisser	1188.466	14.135	84.079	1.654	.058	.010	.903
	Huynh-Feldt	1188.466	14.580	81.514	1.654	.055	.010	.910
	Lower-bound	1188.466	2.000	594.233	1.654	.193	.010	.348
Error(year)	Sphericity Assumed	114217.467	3180	35.917				
	Greenhouse-Geisser	114217.467	2247.487	50.820				
	Huynh-Feldt	114217.467	2318.212	49.270				

Lower-bound	114217.467	318.000	359.174				
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	673.901	1	673.901	31.180	.000	.089	1.000
	Quadratic	580.810	1	580.810	27.916	.000	.081	1.000
	Cubic	.361	1	.361	.012	.914	.000	.051
year * comtot_lvl	Linear	160.010	2	80.005	3.702	.026	.023	.677
	Quadratic	73.648	2	36.824	1.770	.172	.011	.370
	Cubic	46.210	2	23.105	.756	.470	.005	.178
Error(year)	Linear	6873.038	318	21.613				
	Quadratic	6616.077	318	20.805				
	Cubic	9717.183	318	30.557				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	63.316	2	31.658	4.923	.008	.030	.805
Error	2044.810	318	6.430				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.591	.356	-1.292	.109
2	.409	.353	-.286	1.103
3	1.153	.262	.638	1.668
4	-.249	.231	-.704	.206
5	.228	.273	-.309	.766
6	-.210	.287	-.774	.354
7	-.120	.356	-.819	.580
8	.631	.363	-.083	1.344
9	.028	.444	-.846	.902
10	-2.256	.424	-3.090	-1.422
11	-1.358	.412	-2.168	-.547

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-1.000	.634	.999	-3.120	1.120
	3	-1.744(*)	.453	.008	-3.257	-.232
	4	-.342	.421	1.000	-1.749	1.065
	5	-.819	.474	.992	-2.404	.765
	6	-.381	.491	1.000	-2.021	1.259
	7	-.472	.474	1.000	-2.054	1.111
	8	-1.222	.477	.453	-2.816	.372
	9	-.620	.574	1.000	-2.539	1.299



2	10	1.665	.561	.164	-.211	3.540
	11	.766	.573	1.000	-1.147	2.680
	1	1.000	.634	.999	-1.120	3.120
	3	-.744	.470	.999	-2.316	.827
	4	.658	.438	1.000	-.805	2.122
	5	.181	.428	1.000	-1.250	1.611
	6	.619	.428	1.000	-.813	2.050
	7	.528	.545	1.000	-1.294	2.351
	8	-.222	.527	1.000	-1.984	1.540
	9	.381	.546	1.000	-1.445	2.206
	10	2.665(*)	.573	.000	.750	4.579
3	11	1.766(*)	.518	.039	.037	3.496
	1	1.744(*)	.453	.008	.232	3.257
	2	.744	.470	.999	-.827	2.316
	4	1.403(*)	.366	.008	.180	2.625
	5	.925	.400	.695	-.411	2.261
	6	1.363(*)	.381	.022	.091	2.635
	7	1.273	.453	.254	-.242	2.788
	8	.523	.441	1.000	-.950	1.995
	9	1.125	.501	.758	-.549	2.799
	10	3.409(*)	.536	.000	1.618	5.201
	11	2.511(*)	.516	.000	.787	4.235
4	1	.342	.421	1.000	-1.065	1.749
	2	-.658	.438	1.000	-2.122	.805
	3	-1.403(*)	.366	.008	-2.625	-.180
	5	-.478	.439	1.000	-1.946	.991
	6	-.039	.373	1.000	-1.286	1.208
	7	-.130	.423	1.000	-1.543	1.283
	8	-.880	.458	.956	-2.409	.649
	9	-.278	.482	1.000	-1.888	1.333
	10	2.007(*)	.490	.003	.369	3.644
	11	1.108	.496	.768	-.550	2.766
	1	.819	.474	.992	-.765	2.404
5						

6	2	-.181	.428	1.000	-1.611	1.250
	3	-.925	.400	.695	-2.261	.411
	4	.478	.439	1.000	-.991	1.946
	6	.438	.415	1.000	-.950	1.827
	7	.348	.466	1.000	-1.211	1.906
	8	-.402	.446	1.000	-1.894	1.089
	9	.200	.549	1.000	-1.635	2.035
	10	2.484(*)	.483	.000	.869	4.099
	11	1.586	.491	.073	-.056	3.227
	1	.381	.491	1.000	-1.259	2.021
	2	-.619	.428	1.000	-2.050	.813
7	3	-1.363(*)	.381	.022	-2.635	-.091
	4	.039	.373	1.000	-1.208	1.286
	5	-.438	.415	1.000	-1.827	.950
	7	-.091	.560	1.000	-1.961	1.780
	8	-.841	.484	.992	-2.459	.778
	9	-.238	.514	1.000	-1.955	1.478
	10	2.046(*)	.530	.008	.273	3.818
	11	1.147	.514	.769	-.570	2.865
	1	.472	.474	1.000	-1.111	2.054
	2	-.528	.545	1.000	-2.351	1.294
	3	-1.273	.453	.254	-2.788	.242
8	4	.130	.423	1.000	-1.283	1.543
	5	-.348	.466	1.000	-1.906	1.211
	6	.091	.560	1.000	-1.780	1.961
	8	-.750	.581	1.000	-2.690	1.190
	9	-.148	.608	1.000	-2.181	1.885
	10	2.136(*)	.536	.005	.345	3.927
	11	1.238	.528	.663	-.526	3.002
	1	1.222	.477	.453	-.372	2.816
	2	.222	.527	1.000	-1.540	1.984
	3	-.523	.441	1.000	-1.995	.950
	4	.880	.458	.956	-.649	2.409

9	5	.402	.446	1.000	-1.089	1.894
	6	.841	.484	.992	-.778	2.459
	7	.750	.581	1.000	-1.190	2.690
	9	.602	.679	1.000	-1.668	2.872
	10	2.886(*)	.558	.000	1.021	4.752
	11	1.988(*)	.529	.011	.219	3.757
	1	.620	.574	1.000	-1.299	2.539
	2	-.381	.546	1.000	-2.206	1.445
	3	-1.125	.501	.758	-2.799	.549
	4	.278	.482	1.000	-1.333	1.888
	5	-.200	.549	1.000	-2.035	1.635
10	6	.238	.514	1.000	-1.478	1.955
	7	.148	.608	1.000	-1.885	2.181
	8	-.602	.679	1.000	-2.872	1.668
	10	2.284	.749	.128	-.219	4.787
	11	1.386	.641	.828	-.757	3.529
	1	-1.665	.561	.164	-3.540	.211
	2	-2.665(*)	.573	.000	-4.579	-.750
	3	-3.409(*)	.536	.000	-5.201	-1.618
	4	-2.007(*)	.490	.003	-3.644	-.369
	5	-2.484(*)	.483	.000	-4.099	-.869
	6	-2.046(*)	.530	.008	-3.818	-.273
11	7	-2.136(*)	.536	.005	-3.927	-.345
	8	-2.886(*)	.558	.000	-4.752	-1.021
	9	-2.284	.749	.128	-4.787	.219
	11	-.898	.632	1.000	-3.009	1.212
	1	-.766	.573	1.000	-2.680	1.147
	2	-1.766(*)	.518	.039	-3.496	-.037
	3	-2.511(*)	.516	.000	-4.235	-.787
	4	-1.108	.496	.768	-2.766	.550
	5	-1.586	.491	.073	-3.227	.056
	6	-1.147	.514	.769	-2.865	.570
	7	-1.238	.528	.663	-3.002	.526

8	-1.988(*)	.529	.011	-3.757	-.219
9	-1.386	.641	.828	-3.529	.757
10	.898	.632	1.000	-1.212	3.009

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.391	.058	-.506	-.276
Medium	-.153	.085	-.320	.015
High	-.093	.093	-.276	.089

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Community Level	(J) Total Community Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-.238	.103	.063	-.486	.009
	High	-.298(*)	.110	.021	-.561	-.035
Medium	Low	.238	.103	.063	-.009	.486
	High	-.059	.126	.952	-.361	.243
High	Low	.298(*)	.110	.021	.035	.561
	Medium	.059	.126	.952	-.243	.361

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	5.756	2	2.878	4.923	.008	.030	.805
Error	185.892	318	.585				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

Total Community Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-1.140	.449	-2.023	-.256
	2	1.172	.445	.296	2.048
	3	.979	.330	.329	1.630
	4	.349	.292	-.225	.923
	5	-.520	.345	-1.198	.158
	6	-.206	.362	-.917	.506
	7	-.383	.449	-1.265	.500
	8	-.069	.458	-.970	.832
	9	.954	.560	-.149	2.056
	10	-2.970	.535	-4.023	-1.918
	11	-2.467	.520	-3.490	-1.444
Medium	1	-.063	.654	-1.351	1.224
	2	.504	.649	-.772	1.781
	3	1.472	.482	.525	2.420
	4	-.312	.425	-1.149	.524
	5	.508	.502	-.480	1.497
	6	-.526	.527	-1.563	.511

High	7	-.175	.654	-1.462	1.111
	8	1.207	.667	-.105	2.520
	9	-.932	.817	-2.539	.675
	10	-3.050	.780	-4.584	-1.517
	11	-.310	.758	-1.801	1.180
	1	-.571	.714	-1.976	.835
	2	-.449	.708	-1.843	.944
	3	1.008	.526	-.026	2.042
	4	-.785	.464	-1.698	.128
	5	.696	.548	-.382	1.775
	6	.102	.575	-1.030	1.233
	7	.199	.713	-1.204	1.603
	8	.753	.728	-.680	2.186
	9	.063	.891	-1.691	1.817
	10	-.747	.851	-2.421	.927
	11	-1.296	.827	-2.923	.332

### ***General Linear Model with Level of Diversity for ROA Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total Diversity Level	1 Low	111
	2 Medium	129
	3 High	81

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	3296.848	10	329.685	9.133	.000	.028	1.000
Sphericity Assumed							

year * divtot_lvi	Greenhouse-Geisser	3296.848	7.039	468.397	9.133	.000	.028	1.000
	Huynh-Feldt	3296.848	7.259	454.151	9.133	.000	.028	1.000
	Lower-bound	3296.848	1.000	3296.848	9.133	.003	.028	.854
	Sphericity Assumed	609.934	20	30.497	.845	.660	.005	.677
	Greenhouse-Geisser	609.934	14.077	43.328	.845	.621	.005	.559
	Huynh-Feldt	609.934	14.519	42.010	.845	.624	.005	.569
	Lower-bound	609.934	2.000	304.967	.845	.431	.005	.195
Error(year)	Sphericity Assumed	114795.998	3180	36.099				
	Greenhouse-Geisser	114795.998	2238.265	51.288				
	Huynh-Feldt	114795.998	2308.476	49.728				
	Lower-bound	114795.998	318.000	360.994				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	973.546	1	973.546	44.402	.000	.123	1.000
	Quadratic	857.400	1	857.400	40.992	.000	.114	1.000
	Cubic	.871	1	.871	.028	.866	.000	.053
year * divtot_lvi	Linear	60.670	2	30.335	1.384	.252	.009	.297
	Quadratic	38.405	2	19.202	.918	.400	.006	.208
	Cubic	13.220	2	6.610	.216	.806	.001	.084
Error(year)	Linear	6972.378	318	21.926				
	Quadratic	6651.320	318	20.916				
	Cubic	9750.173	318	30.661				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
divtot_lvl	28.635	2	14.317	2.189	.114	.014	.446
Error	2079.491	318	6.539				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.779	.336	-1.440	-.118
2	.583	.333	-.072	1.238
3	1.125	.246	.642	1.609
4	-.085	.217	-.512	.341
5	.084	.258	-.423	.590
6	-.198	.269	-.728	.332
7	-.178	.334	-.835	.480
8	.482	.342	-.192	1.155
9	.175	.419	-.649	1.000
10	-2.475	.402	-3.266	-1.685
11	-1.659	.391	-2.428	-.890

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	-1.362	.599	.732	-3.364	.640
	3	-1.905(*)	.426	.001	-3.327	-.482
	4	-.694	.398	.991	-2.023	.635
	5	-.863	.445	.951	-2.350	.624
	6	-.581	.463	1.000	-2.127	.965
	7	-.602	.446	1.000	-2.091	.888
	8	-1.261	.448	.249	-2.758	.236
	9	-.954	.545	.990	-2.774	.865
	10	1.696	.530	.080	-.076	3.468
	11	.880	.539	.998	-.921	2.681
2	1	1.362	.599	.732	-.640	3.364
	3	-.543	.442	1.000	-2.019	.934
	4	.668	.412	.998	-.708	2.044
	5	.499	.404	1.000	-.852	1.851
	6	.781	.403	.951	-.566	2.128
	7	.761	.514	1.000	-.956	2.477
	8	.101	.499	1.000	-1.565	1.768
	9	.408	.515	1.000	-1.314	2.129
	10	3.058(*)	.544	.000	1.242	4.875
	11	2.242(*)	.491	.000	.600	3.883
3	1	1.905(*)	.426	.001	.482	3.327
	2	.543	.442	1.000	-.934	2.019
	4	1.211(*)	.342	.025	.069	2.352
	5	1.042	.377	.282	-.217	2.301
	6	1.324(*)	.359	.015	.124	2.523
	7	1.303	.427	.127	-.124	2.730
	8	.644	.414	.999	-.739	2.027
	9	.950	.473	.922	-.630	2.530
	10	3.601(*)	.508	.000	1.904	5.297
	11	2.784(*)	.487	.000	1.156	4.413
4	1	.694	.398	.991	-.635	2.023

5	2	-.668	.412	.998	-2.044	.708
	3	-1.211(*)	.342	.025	-2.352	-.069
	5	-.169	.414	1.000	-1.552	1.214
	6	.113	.349	1.000	-1.054	1.280
	7	.092	.397	1.000	-1.233	1.418
	8	-.567	.433	1.000	-2.014	.880
	9	-.261	.453	1.000	-1.774	1.253
	10	2.390(*)	.464	.000	.840	3.940
	11	1.574(*)	.470	.048	.005	3.143
	1	.863	.445	.951	-.624	2.350
	2	-.499	.404	1.000	-1.851	.852
6	3	-1.042	.377	.282	-2.301	.217
	4	.169	.414	1.000	-1.214	1.552
	6	.282	.392	1.000	-1.028	1.592
	7	.261	.439	1.000	-1.206	1.729
	8	-.398	.419	1.000	-1.799	1.003
	9	-.092	.519	1.000	-1.825	1.642
	10	2.559(*)	.456	.000	1.033	4.084
	11	1.743(*)	.463	.011	.197	3.288
	1	.581	.463	1.000	-.965	2.127
	2	-.781	.403	.951	-2.128	.566
	3	-1.324(*)	.359	.015	-2.523	-.124
7	4	-.113	.349	1.000	-1.280	1.054
	5	-.282	.392	1.000	-1.592	1.028
	7	-.021	.527	1.000	-1.781	1.740
	8	-.680	.456	1.000	-2.205	.846
	9	-.373	.483	1.000	-1.988	1.241
	10	2.277(*)	.501	.000	.603	3.951
	11	1.461	.487	.149	-.167	3.089
	1	.602	.446	1.000	-.888	2.091
	2	-.761	.514	1.000	-2.477	.956
	3	-1.303	.427	.127	-2.730	.124
	4	-.092	.397	1.000	-1.418	1.233

8	5	-.261	.439	1.000	-1.729	1.206
	6	.021	.527	1.000	-1.740	1.781
	8	-.659	.546	1.000	-2.484	1.166
	9	-.353	.573	1.000	-2.269	1.563
	10	2.298(*)	.506	.000	.607	3.989
	11	1.481	.499	.162	-.185	3.148
	1	1.261	.448	.249	-.236	2.758
	2	-.101	.499	1.000	-1.768	1.565
	3	-.644	.414	.999	-2.027	.739
	4	.567	.433	1.000	-.880	2.014
	5	.398	.419	1.000	-1.003	1.799
9	6	.680	.456	1.000	-.846	2.205
	7	.659	.546	1.000	-1.166	2.484
	9	.306	.642	1.000	-1.838	2.451
	10	2.957(*)	.527	.000	1.196	4.718
	11	2.140(*)	.497	.001	.479	3.802
	1	.954	.545	.990	-.865	2.774
	2	-.408	.515	1.000	-2.129	1.314
	3	-.950	.473	.922	-2.530	.630
	4	.261	.453	1.000	-1.253	1.774
	5	.092	.519	1.000	-1.642	1.825
	6	.373	.483	1.000	-1.241	1.988
10	7	.353	.573	1.000	-1.563	2.269
	8	-.306	.642	1.000	-2.451	1.838
	10	2.651(*)	.707	.012	.288	5.013
	11	1.834	.610	.145	-.203	3.872
	1	-1.696	.530	.080	-3.468	.076
	2	-3.058(*)	.544	.000	-4.875	-1.242
	3	-3.601(*)	.508	.000	-5.297	-1.904
	4	-2.390(*)	.464	.000	-3.940	-.840
	5	-2.559(*)	.456	.000	-4.084	-1.033
	6	-2.277(*)	.501	.000	-3.951	-.603
	7	-2.298(*)	.506	.000	-3.989	-.607

11	8	-2.957(*)	.527	.000	-4.718	-1.196
	9	-2.651(*)	.707	.012	-5.013	-.288
	11	-.816	.598	1.000	-2.815	1.182
	1	-.880	.539	.998	-2.681	.921
	2	-2.242(*)	.491	.000	-3.883	-.600
	3	-2.784(*)	.487	.000	-4.413	-1.156
	4	-1.574(*)	.470	.048	-3.143	-.005
	5	-1.743(*)	.463	.011	-3.288	-.197
	6	-1.461	.487	.149	-3.089	.167
	7	-1.481	.499	.162	-3.148	.185
	8	-2.140(*)	.497	.001	-3.802	-.479
	9	-1.834	.610	.145	-3.872	.203
	10	.816	.598	1.000	-1.182	2.815

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Diversity Level

### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.392	.073	-.536	-.248
Medium	-.199	.068	-.333	-.066
High	-.207	.086	-.376	-.038

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
Low	Medium	-.192	.100	.156	-.432	.047
	High	-.185	.113	.277	-.455	.086
Medium	Low	.192	.100	.156	-.047	.432
	High	.008	.109	1.000	-.255	.270
High	Low	.185	.113	.277	-.086	.455
	Medium	-.008	.109	1.000	-.270	.255

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	2.603	2	1.302	2.189	.114	.014	.446
Error	189.045	318	.594				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Diversity Level \* year

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-.831	.561	-1.933	.272
	2	1.138	.556	.045	2.231
	3	.586	.410	-.221	1.393
	4	.722	.362	.010	1.434
	5	-.391	.430	-1.236	.455
	6	-.635	.450	-1.519	.250
	7	-.596	.558	-1.694	.502
	8	.641	.572	-.483	1.766
	9	.347	.700	-1.029	1.724

Medium	10	-3.052	.670	-4.371	-1.733
	11	-2.237	.652	-3.519	-.954
	1	-.536	.520	-1.559	.487
	2	.750	.515	-.264	1.764
	3	1.358	.381	.609	2.107
	4	-.409	.336	-1.069	.252
	5	-.198	.399	-.983	.587
	6	-.082	.417	-.902	.739
	7	-.113	.518	-1.131	.906
	8	.019	.530	-1.024	1.062
	9	.829	.649	-.447	2.106
High	10	-2.411	.622	-3.634	-1.187
	11	-1.402	.605	-2.592	-.212
	1	-.971	.656	-2.262	.320
	2	-.140	.650	-1.419	1.140
	3	1.432	.480	.487	2.377
	4	-.569	.424	-1.402	.265
	5	.839	.503	-.151	1.829
	6	.122	.526	-.914	1.158
	7	.176	.653	-1.109	1.462
	8	.785	.669	-.532	2.101
	9	-.651	.819	-2.262	.960
	10	-1.963	.785	-3.507	-.419
	11	-1.339	.763	-2.840	.163

### ***General Linear Model of Level of Employee Relations for ROA Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total Emp 1	Low	146

Relations	2	Medium	102
Level	3	High	73

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3690.040	10	369.004	10.205	.000	.031	1.000
	Greenhouse-Geisser	3690.040	7.042	524.007	10.205	.000	.031	1.000
	Huynh-Feldt	3690.040	7.263	508.064	10.205	.000	.031	1.000
	Lower-bound	3690.040	1.000	3690.040	10.205	.002	.031	.890
year * emptot_lvi	Sphericity Assumed	423.900	20	21.195	.586	.925	.004	.475
	Greenhouse-Geisser	423.900	14.084	30.098	.586	.879	.004	.384
	Huynh-Feldt	423.900	14.526	29.182	.586	.883	.004	.391
	Lower-bound	423.900	2.000	211.950	.586	.557	.004	.147
Error(year)	Sphericity Assumed	114982.032	3180	36.158				
	Greenhouse-Geisser	114982.032	2239.344	51.346				
	Huynh-Feldt	114982.032	2309.616	49.784				
	Lower-bound	114982.032	318.000	361.579				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	1094.982	1	1094.982	49.819	.000	.135	1.000
	Quadratic	844.692	1	844.692	40.332	.000	.113	1.000
	Cubic	1.501	1	1.501	.049	.825	.000	.056
year * emptot_lvi	Linear	43.611	2	21.806	.992	.372	.006	.222
	Quadratic	29.760	2	14.880	.710	.492	.004	.170

Error(year)	Cubic	12.067	2	6.033	.197	.821	.001	.081
	Linear	6989.437	318	21.979				
	Quadratic	6659.966	318	20.943				
	Cubic	9751.326	318	30.665				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	.007	2	.003	.001	.999	.000	.050
Error	2108.119	318	6.629				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.823	.343	-1.497	-.148
2	.717	.341	.047	1.388
3	1.303	.249	.814	1.793
4	-.036	.223	-.475	.403
5	-.061	.263	-.579	.457
6	-.205	.276	-.747	.338
7	-.246	.342	-.918	.427



8	.444	.350	-.245	1.133
9	.332	.429	-.512	1.177
10	-2.612	.410	-3.418	-1.805
11	-1.763	.399	-2.548	-.978

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.540	.612	.494	-3.584	.504
	3	-2.126(*)	.432	.000	-3.569	-.683
	4	-.787	.407	.953	-2.146	.572
	5	-.762	.455	.996	-2.284	.760
	6	-.618	.472	1.000	-2.197	.960
	7	-.577	.456	1.000	-2.100	.945
	8	-1.267	.458	.282	-2.798	.264
	9	-1.155	.556	.885	-3.013	.703
	10	1.789	.542	.057	-.021	3.600
	11	.940	.551	.994	-.900	2.781
2	1	1.540	.612	.494	-.504	3.584
	3	-.586	.453	1.000	-2.099	.927
	4	.753	.421	.986	-.654	2.160
	5	.778	.415	.970	-.609	2.165
	6	.922	.414	.774	-.461	2.305
	7	.963	.526	.979	-.794	2.720
	8	.273	.511	1.000	-1.434	1.979
	9	.385	.526	1.000	-1.373	2.143
	10	3.329(*)	.557	.000	1.468	5.189
	11	2.480(*)	.503	.000	.800	4.161
3	1	2.126(*)	.432	.000	.683	3.569

4	2	.586	.453	1.000	-.927	2.099
	4	1.339(*)	.351	.009	.166	2.511
	5	1.364(*)	.382	.022	.089	2.639
	6	1.508(*)	.365	.003	.289	2.726
	7	1.549(*)	.433	.022	.100	2.997
	8	.859	.422	.910	-.553	2.270
	9	.971	.484	.924	-.646	2.588
	10	3.915(*)	.515	.000	2.195	5.634
	11	3.066(*)	.494	.000	1.414	4.718
	1	.787	.407	.953	-.572	2.146
	2	-.753	.421	.986	-2.160	.654
5	3	-1.339(*)	.351	.009	-2.511	-.166
	5	.025	.424	1.000	-1.393	1.443
	6	.169	.360	1.000	-1.034	1.372
	7	.210	.407	1.000	-1.152	1.571
	8	-.480	.443	1.000	-1.961	1.001
	9	-.368	.463	1.000	-1.917	1.181
	10	2.576(*)	.477	.000	.983	4.169
	11	1.727(*)	.482	.021	.118	3.337
	1	.762	.455	.996	-.760	2.284
	2	-.778	.415	.970	-2.165	.609
	3	-1.364(*)	.382	.022	-2.639	-.089
6	4	-.025	.424	1.000	-1.443	1.393
	6	.144	.400	1.000	-1.191	1.479
	7	.185	.448	1.000	-1.314	1.684
	8	-.505	.428	1.000	-1.935	.925
	9	-.393	.533	1.000	-2.173	1.387
	10	2.551(*)	.464	.000	.999	4.103
	11	1.702(*)	.473	.020	.123	3.282
	1	.618	.472	1.000	-.960	2.197
	2	-.922	.414	.774	-2.305	.461
	3	-1.508(*)	.365	.003	-2.726	-.289
	4	-.169	.360	1.000	-1.372	1.034

7	5	-.144	.400	1.000	-1.479	1.191
	7	.041	.538	1.000	-1.756	1.838
	8	-.649	.467	1.000	-2.210	.912
	9	-.537	.495	1.000	-2.191	1.117
	10	2.407(*)	.511	.000	.700	4.114
	11	1.559	.497	.098	-.102	3.219
	1	.577	.456	1.000	-.945	2.100
	2	-.963	.526	.979	-2.720	.794
	3	-1.549(*)	.433	.022	-2.997	-.100
	4	-.210	.407	1.000	-1.571	1.152
	5	-.185	.448	1.000	-1.684	1.314
8	6	-.041	.538	1.000	-1.838	1.756
	8	-.690	.558	1.000	-2.556	1.176
	9	-.578	.587	1.000	-2.540	1.383
	10	2.366(*)	.516	.000	.642	4.090
	11	1.518	.509	.157	-.184	3.219
	1	1.267	.458	.282	-.264	2.798
	2	-.273	.511	1.000	-1.979	1.434
	3	-.859	.422	.910	-2.270	.553
	4	.480	.443	1.000	-1.001	1.961
	5	.505	.428	1.000	-.925	1.935
	6	.649	.467	1.000	-.912	2.210
9	7	.690	.558	1.000	-1.176	2.556
	9	.112	.657	1.000	-2.084	2.308
	10	3.056(*)	.539	.000	1.257	4.856
	11	2.207(*)	.509	.001	.508	3.907
	1	1.155	.556	.885	-.703	3.013
	2	-.385	.526	1.000	-2.143	1.373
	3	-.971	.484	.924	-2.588	.646
	4	.368	.463	1.000	-1.181	1.917
	5	.393	.533	1.000	-1.387	2.173
	6	.537	.495	1.000	-1.117	2.191
	7	.578	.587	1.000	-1.383	2.540

10	8	-.112	.657	1.000	-2.308	2.084
	10	2.944(*)	.722	.003	.530	5.358
	11	2.096(*)	.624	.047	.012	4.180
	1	-1.789	.542	.057	-3.600	.021
	2	-3.329(*)	.557	.000	-5.189	-1.468
	3	-3.915(*)	.515	.000	-5.634	-2.195
	4	-2.576(*)	.477	.000	-4.169	-.983
	5	-2.551(*)	.464	.000	-4.103	-.999
	6	-2.407(*)	.511	.000	-4.114	-.700
	7	-2.366(*)	.516	.000	-4.090	-.642
	8	-3.056(*)	.539	.000	-4.856	-1.257
11	9	-2.944(*)	.722	.003	-5.358	-.530
	11	-.849	.610	1.000	-2.888	1.191
	1	-.940	.551	.994	-2.781	.900
	2	-2.480(*)	.503	.000	-4.161	-.800
	3	-3.066(*)	.494	.000	-4.718	-1.414
	4	-1.727(*)	.482	.021	-3.337	-.118
	5	-1.702(*)	.473	.020	-3.282	-.123
	6	-1.559	.497	.098	-3.219	.102
	7	-1.518	.509	.157	-3.219	.184
	8	-2.207(*)	.509	.001	-3.907	-.508
	9	-2.096(*)	.624	.047	-4.180	-.012
	10	.849	.610	1.000	-1.191	2.888

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp	Mean	Std. Error	95% Confidence Interval
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Relations Level			Lower Bound	Upper Bound
Low	-.266	.064	-.393	-.140
Medium	-.269	.077	-.421	-.118
High	-.268	.091	-.447	-.089

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.003	.100	1.000	-.237	.244
	High	.002	.111	1.000	-.265	.269
Medium	Low	-.003	.100	1.000	-.244	.237
	High	-.001	.119	1.000	-.287	.284
High	Low	-.002	.111	1.000	-.269	.265
	Medium	.001	.119	1.000	-.284	.287

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	.001	2	.000	.001	.999	.000	.050
Error	191.647	318	.603				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-.490	.488	-1.451	.471
	2	.369	.486	-.587	1.324
	3	.552	.355	-.146	1.249
	4	-.294	.318	-.920	.332
	5	.405	.375	-.334	1.143
	6	-.325	.393	-1.098	.447
	7	-.020	.487	-.978	.939
	8	.339	.499	-.643	1.321
	9	.268	.612	-.935	1.472
	10	-2.417	.584	-3.567	-1.268
	11	-1.315	.569	-2.435	-.196
Medium	1	-.827	.584	-1.977	.323
	2	.960	.581	-.183	2.103
	3	1.055	.424	.220	1.890
	4	.367	.381	-.382	1.116
	5	-.591	.449	-1.474	.293
	6	-.088	.470	-1.012	.837
	7	-.387	.583	-1.533	.760
	8	.520	.597	-.655	1.695
	9	.015	.732	-1.424	1.455
	10	-2.081	.699	-3.456	-.705
	11	-1.909	.681	-3.248	-.570
High	1	-1.151	.691	-2.510	.209
	2	.823	.687	-.529	2.174
	3	2.302	.501	1.316	3.289
	4	-.180	.450	-1.065	.705
	5	.003	.531	-1.041	1.048
	6	-.201	.556	-1.294	.892
	7	-.331	.689	-1.686	1.025
	8	.474	.706	-.915	1.862

9	.714	.865	-.988	2.415
10	-3.337	.826	-4.963	-1.711
11	-2.065	.804	-3.648	-.483

### ***General Linear Model with Level of Environment for ROA Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total Environment Level	1 Low	82
	2 Medium	157
	3 High	82

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3202.401	10	320.240	8.882	.000	.027	1.000
	Greenhouse-Geisser	3202.401	7.054	453.984	8.882	.000	.027	1.000
	Huynh-Feldt	3202.401	7.276	440.154	8.882	.000	.027	1.000
	Lower-bound	3202.401	1.000	3202.401	8.882	.003	.027	.844
year * envtot_lvl	Sphericity Assumed	756.698	20	37.835	1.049	.398	.007	.798
	Greenhouse-Geisser	756.698	14.108	53.636	1.049	.400	.007	.680
	Huynh-Feldt	756.698	14.551	52.002	1.049	.400	.007	.691
	Lower-bound	756.698	2.000	378.349	1.049	.351	.007	.233
Error(year)	Sphericity Assumed	114649.234	3180	36.053				
	Greenhouse-Geisser	114649.234	2243.170	51.110				
	Huynh-Feldt	114649.234	2313.654	49.553				
	Lower-bound	114649.234	318.000	360.532				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	939.828	1	939.828	42.525	.000	.118	1.000
	Quadratic	823.930	1	823.930	39.357	.000	.110	1.000
	Cubic	.074	1	.074	.002	.961	.000	.050
year * envtot_lvl	Linear	5.067	2	2.534	.115	.892	.001	.067
	Quadratic	32.486	2	16.243	.776	.461	.005	.182
	Cubic	52.403	2	26.202	.858	.425	.005	.197
Error(year)	Linear	7027.981	318	22.101				
	Quadratic	6657.239	318	20.935				
	Cubic	9710.990	318	30.538				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	7.191	2	3.596	.544	.581	.003	.140
Error	2100.935	318	6.607				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year



### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.839	.343	-1.514	-.164
2	.675	.342	.002	1.348
3	1.227	.253	.729	1.724
4	-.014	.225	-.457	.429
5	-.029	.266	-.552	.495
6	-.238	.277	-.784	.307
7	-.263	.344	-.939	.413
8	.588	.351	-.102	1.279
9	.192	.432	-.657	1.042
10	-2.287	.411	-3.095	-1.478
11	-1.803	.402	-2.593	-1.013

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year (J) year		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.514	.612	.537	-3.560	.531
	3	-2.066(*)	.435	.000	-3.520	-.611
	4	-.825	.407	.914	-2.185	.535
	5	-.811	.456	.988	-2.336	.715
	6	-.601	.475	1.000	-2.189	.987
	7	-.576	.456	1.000	-2.099	.947
	8	-1.428	.458	.105	-2.959	.104
	9	-1.031	.560	.977	-2.901	.839

2	10	1.447	.540	.347	-.357	3.252
	11	.964	.553	.991	-.886	2.813
	1	1.514	.612	.537	-.531	3.560
	3	-.552	.455	1.000	-2.072	.969
	4	.689	.423	.998	-.725	2.103
	5	.704	.419	.996	-.697	2.104
	6	.913	.414	.792	-.471	2.297
	7	.938	.530	.988	-.832	2.707
	8	.087	.512	1.000	-1.623	1.796
	9	.483	.528	1.000	-1.282	2.248
	10	2.962(*)	.560	.000	1.092	4.832
3	11	2.478(*)	.505	.000	.789	4.167
	1	2.066(*)	.435	.000	.611	3.520
	2	.552	.455	1.000	-.969	2.072
	4	1.241(*)	.355	.029	.054	2.428
	5	1.255	.387	.069	-.037	2.548
	6	1.465(*)	.368	.005	.235	2.695
	7	1.489(*)	.437	.040	.028	2.951
	8	.638	.427	1.000	-.788	2.064
	9	1.035	.486	.853	-.591	2.660
	10	3.513(*)	.521	.000	1.772	5.255
	11	3.029(*)	.499	.000	1.362	4.696
4	1	.825	.407	.914	-.535	2.185
	2	-.689	.423	.998	-2.103	.725
	3	-1.241(*)	.355	.029	-2.428	-.054
	5	.014	.429	1.000	-1.419	1.448
	6	.224	.362	1.000	-.985	1.433
	7	.249	.411	1.000	-1.123	1.620
	8	-.603	.445	1.000	-2.091	.886
	9	-.206	.466	1.000	-1.765	1.352
	10	2.272(*)	.479	.000	.672	3.873
	11	1.788(*)	.485	.014	.168	3.409
5	1	.811	.456	.988	-.715	2.336

6	2	-.704	.419	.996	-2.104	.697
	3	-1.255	.387	.069	-2.548	.037
	4	-.014	.429	1.000	-1.448	1.419
	6	.210	.403	1.000	-1.136	1.556
	7	.234	.452	1.000	-1.275	1.744
	8	-.617	.430	1.000	-2.054	.820
	9	-.221	.536	1.000	-2.013	1.572
	10	2.258(*)	.467	.000	.698	3.818
	11	1.774(*)	.476	.012	.185	3.363
	1	.601	.475	1.000	-.987	2.189
	2	-.913	.414	.792	-2.297	.471
7	3	-1.465(*)	.368	.005	-2.695	-.235
	4	-.224	.362	1.000	-1.433	.985
	5	-.210	.403	1.000	-1.556	1.136
	7	.024	.541	1.000	-1.783	1.832
	8	-.827	.469	.989	-2.394	.740
	9	-.430	.498	1.000	-2.096	1.235
	10	2.048(*)	.512	.004	.337	3.759
	11	1.564	.500	.101	-.108	3.236
	1	.576	.456	1.000	-.947	2.099
	2	-.938	.530	.988	-2.707	.832
	3	-1.489(*)	.437	.040	-2.951	-.028
8	4	-.249	.411	1.000	-1.620	1.123
	5	-.234	.452	1.000	-1.744	1.275
	6	-.024	.541	1.000	-1.832	1.783
	8	-.851	.560	1.000	-2.723	1.021
	9	-.455	.591	1.000	-2.429	1.519
	10	2.024(*)	.517	.006	.295	3.753
	11	1.540	.512	.146	-.172	3.252
	1	1.428	.458	.105	-.104	2.959
	2	-.087	.512	1.000	-1.796	1.623
	3	-.638	.427	1.000	-2.064	.788
	4	.603	.445	1.000	-.886	2.091

9	5	.617	.430	1.000	-.820	2.054
	6	.827	.469	.989	-.740	2.394
	7	.851	.560	1.000	-1.021	2.723
	9	.396	.660	1.000	-1.809	2.602
	10	2.875(*)	.542	.000	1.064	4.686
	11	2.391(*)	.510	.000	.688	4.094
	1	1.031	.560	.977	-.839	2.901
	2	-.483	.528	1.000	-2.248	1.282
	3	-1.035	.486	.853	-2.660	.591
	4	.206	.466	1.000	-1.352	1.765
	5	.221	.536	1.000	-1.572	2.013
10	6	.430	.498	1.000	-1.235	2.096
	7	.455	.591	1.000	-1.519	2.429
	8	-.396	.660	1.000	-2.602	1.809
	10	2.479(*)	.725	.039	.054	4.903
	11	1.995	.628	.087	-.105	4.095
	1	-1.447	.540	.347	-3.252	.357
	2	-2.962(*)	.560	.000	-4.832	-1.092
	3	-3.513(*)	.521	.000	-5.255	-1.772
	4	-2.272(*)	.479	.000	-3.873	-.672
	5	-2.258(*)	.467	.000	-3.818	-.698
	6	-2.048(*)	.512	.004	-3.759	-.337
11	7	-2.024(*)	.517	.006	-3.753	-.295
	8	-2.875(*)	.542	.000	-4.686	-1.064
	9	-2.479(*)	.725	.039	-4.903	-.054
	11	-.484	.611	1.000	-2.525	1.558
	1	-.964	.553	.991	-2.813	.886
	2	-2.478(*)	.505	.000	-4.167	-.789
	3	-3.029(*)	.499	.000	-4.696	-1.362
	4	-1.788(*)	.485	.014	-3.409	-.168
	5	-1.774(*)	.476	.012	-3.363	-.185
	6	-1.564	.500	.101	-3.236	.108
	7	-1.540	.512	.146	-3.252	.172

8	-2.391(*)	.510	.000	-4.094	-.688
9	-1.995	.628	.087	-4.095	.105
10	.484	.611	1.000	-1.558	2.525

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.222	.086	-.390	-.054
Medium	-.314	.062	-.436	-.192
High	-.225	.086	-.394	-.057

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	.092	.106	.767	-.162	.345
	High	.003	.121	1.000	-.287	.294
Medium	Low	-.092	.106	.767	-.345	.162
	High	-.089	.106	.786	-.342	.165
High	Low	-.003	.121	1.000	-.294	.287
	Medium	.089	.106	.786	-.165	.342

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	.654	2	.327	.544	.581	.003	.140
Error	190.994	318	.601				

The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Environment Level	year			Lower Bound	Upper Bound
Low	1	-1.926	.648	-3.201	-.652
	2	1.474	.646	.203	2.745
	3	1.364	.477	.425	2.303
	4	.278	.425	-.559	1.114
	5	.116	.503	-.873	1.105
	6	-.613	.524	-1.643	.417
	7	-.027	.649	-1.305	1.250
	8	.698	.663	-.607	2.003
	9	-.228	.816	-1.832	1.377
	10	-1.430	.776	-2.957	.098
	11	-2.148	.759	-3.640	-.656
Medium	1	-.447	.468	-1.368	.474
	2	.610	.467	-.308	1.528
	3	.727	.345	.048	1.405
	4	-.202	.307	-.807	.403
	5	.081	.363	-.634	.796
	6	-.166	.378	-.911	.578
	7	-.024	.469	-.947	.899

High	8	-.102	.479	-1.045	.842
	9	.608	.589	-.552	1.768
	10	-3.284	.561	-4.388	-2.180
	11	-1.254	.548	-2.332	-.175
	1	-.144	.648	-1.419	1.130
	2	-.059	.646	-1.330	1.212
	3	1.589	.477	.650	2.528
	4	-.119	.425	-.955	.718
	5	-.283	.503	-1.273	.706
	6	.064	.524	-.966	1.094
	7	-.738	.649	-2.015	.540
	8	1.169	.663	-.136	2.474
	9	.196	.816	-1.409	1.800
	10	-2.146	.776	-3.674	-.619
	11	-2.006	.759	-3.499	-.514

### ***General Linear Model with Level of Product for ROA Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total Product Level	1	Low	76
	2	Medium	160
	3	High	85

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3337.340	10	333.734	9.271	.000	.028	1.000
	Greenhouse-Geisser	3337.340	7.078	471.503	9.271	.000	.028	1.000
	Huynh-Feldt	3337.340	7.301	457.102	9.271	.000	.028	1.000
	Lower-bound	3337.340	1.000	3337.340	9.271	.003	.028	.859
year * protot_lvl	Sphericity Assumed	928.188	20	46.409	1.289	.174	.008	.893
	Greenhouse-Geisser	928.188	14.156	65.568	1.289	.205	.008	.793
	Huynh-Feldt	928.188	14.602	63.565	1.289	.202	.008	.803
	Lower-bound	928.188	2.000	464.094	1.289	.277	.008	.279
Error(year)	Sphericity Assumed	114477.745	3180	35.999				
	Greenhouse-Geisser	114477.745	2250.835	50.860				
	Huynh-Feldt	114477.745	2321.747	49.307				
	Lower-bound	114477.745	318.000	359.993				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	956.516	1	956.516	43.456	.000	.120	1.000
	Quadratic	748.321	1	748.321	35.605	.000	.101	1.000
	Cubic	.567	1	.567	.018	.892	.000	.052
year * protot_lvl	Linear	33.528	2	16.764	.762	.468	.005	.179
	Quadratic	6.216	2	3.108	.148	.863	.001	.073
	Cubic	3.228	2	1.614	.053	.949	.000	.058
Error(year)	Linear	6999.520	318	22.011				
	Quadratic	6683.509	318	21.017				
	Cubic	9760.165	318	30.692				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects



Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_ivl	3.505	2	1.752	.265	.768	.002	.092
Error	2104.621	318	6.618				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.803	.347	-1.486	-.120
2	.734	.345	.056	1.413
3	1.174	.251	.680	1.669
4	-.054	.227	-.500	.393
5	-.035	.267	-.561	.490
6	-.295	.279	-.844	.254
7	-.174	.346	-.856	.507
8	.526	.354	-.170	1.222
9	.271	.432	-.579	1.122
10	-2.560	.413	-3.373	-1.748
11	-1.647	.405	-2.444	-.851

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.537	.619	.527	-3.606	.531
	3	-1.977(*)	.440	.001	-3.447	-.507
	4	-.749	.413	.982	-2.128	.630
	5	-.767	.460	.996	-2.305	.770
	6	-.508	.479	1.000	-2.109	1.092
	7	-.629	.461	1.000	-2.170	.912
	8	-1.329	.462	.210	-2.872	.214
	9	-1.074	.563	.961	-2.956	.808
	10	1.757	.545	.073	-.063	3.578
	11	.845	.558	1.000	-1.020	2.709
2	1	1.537	.619	.527	-.531	3.606
	3	-.440	.456	1.000	-1.963	1.084
	4	.788	.426	.976	-.635	2.212
	5	.770	.422	.981	-.641	2.181
	6	1.029	.418	.550	-.368	2.427
	7	.909	.533	.994	-.873	2.691
	8	.209	.518	1.000	-1.521	1.938
	9	.463	.529	1.000	-1.305	2.231
	10	3.295(*)	.564	.000	1.411	5.178
	11	2.382(*)	.510	.000	.678	4.086
3	1	1.977(*)	.440	.001	.507	3.447
	2	.440	.456	1.000	-1.084	1.963
	4	1.228(*)	.356	.034	.040	2.416
	5	1.210	.385	.095	-.075	2.495
	6	1.469(*)	.369	.005	.237	2.700
	7	1.348	.439	.121	-.120	2.817
	8	.648	.424	.999	-.769	2.066

4	9	.903	.491	.978	-.738	2.544
	10	3.735(*)	.516	.000	2.010	5.459
	11	2.822(*)	.503	.000	1.140	4.503
	1	.749	.413	.982	-.630	2.128
	2	-.788	.426	.976	-2.212	.635
	3	-1.228(*)	.356	.034	-2.416	-.040
	5	-.018	.431	1.000	-1.460	1.423
	6	.241	.365	1.000	-.978	1.460
	7	.120	.414	1.000	-1.262	1.503
	8	-.580	.448	1.000	-2.077	.918
	9	-.325	.468	1.000	-1.890	1.240
5	10	2.507(*)	.480	.000	.902	4.112
	11	1.594	.489	.066	-.041	3.229
	1	.767	.460	.996	-.770	2.305
	2	-.770	.422	.981	-2.181	.641
	3	-1.210	.385	.095	-2.495	.075
	4	.018	.431	1.000	-1.423	1.460
	6	.259	.405	1.000	-1.095	1.613
	7	.139	.454	1.000	-1.379	1.657
	8	-.561	.434	1.000	-2.012	.889
	9	-.307	.536	1.000	-2.096	1.483
	10	2.525(*)	.472	.000	.949	4.101
6	11	1.612(*)	.478	.045	.015	3.209
	1	.508	.479	1.000	-1.092	2.109
	2	-1.029	.418	.550	-2.427	.368
	3	-1.469(*)	.369	.005	-2.700	-.237
	4	-.241	.365	1.000	-1.460	.978
	5	-.259	.405	1.000	-1.613	1.095
	7	-.120	.545	1.000	-1.941	1.700
	8	-.821	.471	.991	-2.396	.755
	9	-.566	.500	1.000	-2.236	1.104
	10	2.266(*)	.515	.001	.544	3.988
	11	1.353	.504	.344	-.331	3.037

7	1	.629	.461	1.000	-.912	2.170
	2	-.909	.533	.994	-2.691	.873
	3	-1.348	.439	.121	-2.817	.120
	4	-.120	.414	1.000	-1.503	1.262
	5	-.139	.454	1.000	-1.657	1.379
	6	.120	.545	1.000	-1.700	1.941
	8	-.700	.565	1.000	-2.590	1.189
	9	-.446	.593	1.000	-2.426	1.535
	10	2.386(*)	.521	.000	.645	4.128
	11	1.473	.516	.223	-.251	3.198
8	1	1.329	.462	.210	-.214	2.872
	2	-.209	.518	1.000	-1.938	1.521
	3	-.648	.424	.999	-2.066	.769
	4	.580	.448	1.000	-.918	2.077
	5	.561	.434	1.000	-.889	2.012
	6	.821	.471	.991	-.755	2.396
	7	.700	.565	1.000	-1.189	2.590
	9	.255	.662	1.000	-1.957	2.466
	10	3.086(*)	.545	.000	1.265	4.908
	11	2.173(*)	.515	.002	.454	3.893
9	1	1.074	.563	.961	-.808	2.956
	2	-.463	.529	1.000	-2.231	1.305
	3	-.903	.491	.978	-2.544	.738
	4	.325	.468	1.000	-1.240	1.890
	5	.307	.536	1.000	-1.483	2.096
	6	.566	.500	1.000	-1.104	2.236
	7	.446	.593	1.000	-1.535	2.426
	8	-.255	.662	1.000	-2.466	1.957
	10	2.832(*)	.726	.006	.405	5.258
	11	1.919	.631	.132	-.191	4.029
10	1	-1.757	.545	.073	-3.578	.063
	2	-3.295(*)	.564	.000	-5.178	-1.411
	3	-3.735(*)	.516	.000	-5.459	-2.010

11	4	-2.507(*)	.480	.000	-4.112	-.902
	5	-2.525(*)	.472	.000	-4.101	-.949
	6	-2.266(*)	.515	.001	-3.988	-.544
	7	-2.386(*)	.521	.000	-4.128	-.645
	8	-3.086(*)	.545	.000	-4.908	-1.265
	9	-2.832(*)	.726	.006	-5.258	-.405
	11	-.913	.616	1.000	-2.970	1.144
	1	-.845	.558	1.000	-2.709	1.020
	2	-2.382(*)	.510	.000	-4.086	-.678
	3	-2.822(*)	.503	.000	-4.503	-1.140
	4	-1.594	.489	.066	-3.229	.041
	5	-1.612(*)	.478	.045	-3.209	-.015
	6	-1.353	.504	.344	-3.037	.331
	7	-1.473	.516	.223	-3.198	.251
	8	-2.173(*)	.515	.002	-3.893	-.454
	9	-1.919	.631	.132	-4.029	.191
	10	.913	.616	1.000	-1.144	2.970

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.270	.089	-.445	-.095
Medium	-.293	.061	-.414	-.173
High	-.218	.084	-.383	-.052

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Product Level	(J) Total Product Level				Upper Bound	Lower Bound
Low	Medium	.024	.108	.995	-.236	.283
	High	-.052	.122	.964	-.346	.242
Medium	Low	-.024	.108	.995	-.283	.236
	High	-.076	.104	.849	-.326	.174
High	Low	.052	.122	.964	-.242	.346
	Medium	.076	.104	.849	-.174	.326

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	.319	2	.159	.265	.768	.002	.092
Error	191.329	318	.602				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Product Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Product Level	year			Lower Bound	Upper Bound
Low	1	-1.377	.676	-2.707	-.046
	2	1.310	.673	-.014	2.633
	3	.365	.490	-.599	1.328
	4	-.119	.442	-.989	.751

Medium	5	.359	.521	-.666	1.383
	6	-.578	.544	-1.648	.492
	7	-.046	.675	-1.375	1.282
	8	1.339	.689	-.018	2.695
	9	-.900	.842	-2.558	.757
	10	-1.498	.805	-3.082	.086
	11	-1.821	.789	-3.374	-.269
	1	-.635	.466	-1.552	.283
	2	.484	.464	-.428	1.396
	3	.802	.338	.137	1.466
	4	-.080	.305	-.680	.519
High	5	.151	.359	-.555	.858
	6	-.016	.375	-.753	.722
	7	-.299	.465	-1.215	.616
	8	.201	.475	-.734	1.136
	9	.207	.581	-.935	1.349
	10	-2.258	.555	-3.350	-1.166
	11	-1.784	.544	-2.854	-.714
	1	-.398	.640	-1.656	.861
	2	.410	.636	-.841	1.661
	3	2.356	.463	1.445	3.267
	4	.038	.418	-.785	.861
	5	-.616	.493	-1.585	.353
	6	-.290	.514	-1.302	.721
	7	-.177	.639	-1.433	1.079
	8	.038	.652	-1.244	1.321
	9	1.507	.797	-.060	3.074
	10	-3.925	.761	-5.423	-2.427
	11	-1.337	.746	-2.805	.131

## General Linear Model with Level of Corporate Governance for ROA Annual Growth

### Between-Subjects Factors

		Value Label	N
Total Corp Gov Level	1	Low	81
	2	Medium	204
	3	High	36

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	3086.470	10	308.647	8.584	.000	.026	1.000
	Greenhouse-Geisser	3086.470	7.081	435.850	8.584	.000	.026	1.000
	Huynh-Feldt	3086.470	7.305	422.533	8.584	.000	.026	1.000
	Lower-bound	3086.470	1.000	3086.470	8.584	.004	.026	.832
year * cgovtot_lvi	Sphericity Assumed	1064.333	20	53.217	1.480	.078	.009	.939
	Greenhouse-Geisser	1064.333	14.163	75.149	1.480	.109	.009	.859
	Huynh-Feldt	1064.333	14.609	72.853	1.480	.106	.009	.867
	Lower-bound	1064.333	2.000	532.167	1.480	.229	.009	.315
Error(year)	Sphericity Assumed	114341.599	3180	35.956				
	Greenhouse-Geisser	114341.599	2251.916	50.775				
	Huynh-Feldt	114341.599	2322.889	49.224				
	Lower-bound	114341.599	318.000	359.565				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts



Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	709.923	1	709.923	32.206	.000	.092	1.000
	Quadratic	852.199	1	852.199	41.658	.000	.116	1.000
	Cubic	4.304	1	4.304	.141	.708	.000	.066
year * cgovtot_lvl	Linear	23.406	2	11.703	.531	.589	.003	.137
	Quadratic	184.461	2	92.231	4.509	.012	.028	.767
	Cubic	40.921	2	20.461	.669	.513	.004	.162
Error(year)	Linear	7009.642	318	22.043				
	Quadratic	6505.264	318	20.457				
	Cubic	9722.471	318	30.574				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	7.824	2	3.912	.592	.554	.004	.148
Error	2100.302	318	6.605				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-1.002	.417	-1.822	-.181
2	.764	.415	-.052	1.579
3	.957	.306	.355	1.558
4	-.031	.273	-.567	.506
5	-.104	.322	-.737	.529
6	.031	.334	-.627	.688
7	.066	.414	-.749	.882
8	.164	.425	-.673	1.001
9	.850	.518	-.169	1.870
10	-3.069	.496	-4.045	-2.092
11	-1.937	.485	-2.892	-.983

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-1.765	.744	.639	-4.253	.723
	3	-1.958(*)	.530	.014	-3.729	-.188
	4	-.971	.496	.944	-2.628	.686
	5	-.897	.555	.998	-2.752	.957
	6	-1.032	.573	.984	-2.948	.884
	7	-1.068	.552	.953	-2.913	.777
	8	-1.166	.558	.877	-3.030	.698
	9	-1.852	.672	.291	-4.099	.395
	10	2.067	.658	.097	-.133	4.267
	11	.936	.670	1.000	-1.303	3.174
2	1	1.765	.744	.639	-.723	4.253

3	3	-.193	.550	1.000	-2.032	1.646
	4	.795	.512	.999	-.917	2.506
	5	.868	.506	.993	-.822	2.558
	6	.733	.504	1.000	-.951	2.417
	7	.697	.638	1.000	-1.436	2.831
	8	.599	.621	1.000	-1.476	2.675
	9	-.087	.636	1.000	-2.211	2.038
	10	3.832(*)	.676	.000	1.572	6.092
	11	2.701(*)	.613	.001	.653	4.749
	1	1.958(*)	.530	.014	.188	3.729
	2	.193	.550	1.000	-1.646	2.032
4	4	.988	.429	.708	-.447	2.423
	5	1.061	.469	.743	-.507	2.629
	6	.926	.443	.876	-.554	2.406
	7	.890	.530	.996	-.879	2.660
	8	.792	.515	.999	-.927	2.512
	9	.106	.586	1.000	-1.853	2.066
	10	4.025(*)	.627	.000	1.929	6.122
	11	2.894(*)	.604	.000	.877	4.911
	1	.971	.496	.944	-.686	2.628
	2	-.795	.512	.999	-2.506	.917
	3	-.988	.429	.708	-2.423	.447
5	5	.073	.519	1.000	-1.661	1.808
	6	-.061	.438	1.000	-1.524	1.401
	7	-.097	.496	1.000	-1.753	1.559
	8	-.195	.539	1.000	-1.996	1.606
	9	-.881	.561	.999	-2.757	.995
	10	3.038(*)	.577	.000	1.108	4.967
	11	1.906	.587	.068	-.054	3.866
	1	.897	.555	.998	-.957	2.752
	2	-.868	.506	.993	-2.558	.822
	3	-1.061	.469	.743	-2.629	.507
	4	-.073	.519	1.000	-1.808	1.661

6	6	-.135	.486	1.000	-1.758	1.488
	7	-.171	.545	1.000	-1.993	1.651
	8	-.269	.521	1.000	-2.010	1.472
	9	-.955	.646	1.000	-3.112	1.203
	10	2.964(*)	.564	.000	1.080	4.848
	11	1.833	.574	.081	-.085	3.750
	1	1.032	.573	.984	-.884	2.948
	2	-.733	.504	1.000	-2.417	.951
	3	-.926	.443	.876	-2.406	.554
	4	.061	.438	1.000	-1.401	1.524
	5	.135	.486	1.000	-1.488	1.758
7	7	-.036	.653	1.000	-2.218	2.147
	8	-.134	.567	1.000	-2.028	1.761
	9	-.820	.599	1.000	-2.820	1.181
	10	3.099(*)	.618	.000	1.032	5.166
	11	1.968	.604	.066	-.051	3.986
	1	1.068	.552	.953	-.777	2.913
	2	-.697	.638	1.000	-2.831	1.436
	3	-.890	.530	.996	-2.660	.879
	4	.097	.496	1.000	-1.559	1.753
	5	.171	.545	1.000	-1.651	1.993
	6	.036	.653	1.000	-2.147	2.218
8	8	-.098	.676	1.000	-2.358	2.162
	9	-.784	.715	1.000	-3.172	1.604
	10	3.135(*)	.621	.000	1.061	5.209
	11	2.003	.615	.066	-.052	4.059
	1	1.166	.558	.877	-.698	3.030
	2	-.599	.621	1.000	-2.675	1.476
	3	-.792	.515	.999	-2.512	.927
	4	.195	.539	1.000	-1.606	1.996
	5	.269	.521	1.000	-1.472	2.010
	6	.134	.567	1.000	-1.761	2.028
	7	.098	.676	1.000	-2.162	2.358

9	9	-.686	.794	1.000	-3.339	1.967
	10	3.233(*)	.656	.000	1.041	5.425
	11	2.101(*)	.620	.043	.029	4.174
	1	1.852	.672	.291	-.395	4.099
	2	.087	.636	1.000	-2.038	2.211
	3	-.106	.586	1.000	-2.066	1.853
	4	.881	.561	.999	-.995	2.757
	5	.955	.646	1.000	-1.203	3.112
	6	.820	.599	1.000	-1.181	2.820
	7	.784	.715	1.000	-1.604	3.172
	8	.686	.794	1.000	-1.967	3.339
10	10	3.919(*)	.871	.001	1.008	6.829
	11	2.787(*)	.752	.014	.274	5.301
	1	-2.067	.658	.097	-4.267	.133
	2	-3.832(*)	.676	.000	-6.092	-1.572
	3	-4.025(*)	.627	.000	-6.122	-1.929
	4	-3.038(*)	.577	.000	-4.967	-1.108
	5	-2.964(*)	.564	.000	-4.848	-1.080
	6	-3.099(*)	.618	.000	-5.166	-1.032
	7	-3.135(*)	.621	.000	-5.209	-1.061
	8	-3.233(*)	.656	.000	-5.425	-1.041
	9	-3.919(*)	.871	.001	-6.829	-1.008
11	11	-1.131	.744	1.000	-3.616	1.353
	1	-.936	.670	1.000	-3.174	1.303
	2	-2.701(*)	.613	.001	-4.749	-.653
	3	-2.894(*)	.604	.000	-4.911	-.877
	4	-1.906	.587	.068	-3.866	.054
	5	-1.833	.574	.081	-3.750	.085
	6	-1.968	.604	.066	-3.986	.051
	7	-2.003	.615	.066	-4.059	.052
	8	-2.101(*)	.620	.043	-4.174	-.029
	9	-2.787(*)	.752	.014	-5.301	-.274
	10	1.131	.744	1.000	-1.353	3.616

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Corp Gov Level

### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.318	.086	-.488	-.149
Medium	-.233	.054	-.340	-.126
High	-.352	.129	-.606	-.098

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Corp Gov Level (J) Total Corp Gov Level		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-.085	.102	.786	-.330	.159
	High	.034	.155	.995	-.339	.406
Medium	Low	.085	.102	.786	-.159	.330
	High	.119	.140	.779	-.217	.456
High	Low	-.034	.155	.995	-.406	.339
	Medium	-.119	.140	.779	-.456	.217

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	.711	2	.356	.592	.554	.004	.148
Error	190.937	318	.600				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total Corp Gov Level \* year

Measure: MEASURE\_1

Total Corp Gov Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-.776	.655	-2.066	.513
	2	.122	.651	-1.159	1.404
	3	1.550	.480	.605	2.495
	4	-.039	.428	-.881	.804
	5	.312	.505	-.682	1.307
	6	-.572	.525	-1.606	.461
	7	.719	.651	-.562	1.999
	8	-.227	.668	-1.542	1.088
	9	1.747	.814	.146	3.348
	10	-3.761	.780	-5.295	-2.227
	11	-2.575	.762	-4.074	-1.076
Medium	1	-.576	.413	-1.389	.236
	2	.737	.410	-.070	1.545
	3	1.090	.303	.495	1.686
	4	-.081	.270	-.612	.450
	5	-.022	.319	-.649	.605
	6	-.290	.331	-.941	.362
	7	-.631	.410	-1.438	.176
	8	.772	.421	-.057	1.600
	9	-.462	.513	-1.471	.547
	10	-1.834	.491	-2.801	-.867

High	11	-1.264	.480	-2.209	-.320
	1	-1.652	.983	-3.586	.282
	2	1.431	.977	-.491	3.354
	3	.230	.721	-1.188	1.648
	4	.026	.643	-1.238	1.291
	5	-.603	.758	-2.095	.889
	6	.953	.788	-.597	2.503
	7	.111	.976	-1.810	2.032
	8	-.052	1.002	-2.024	1.920
	9	1.266	1.221	-1.136	3.667
	10	-3.611	1.170	-5.912	-1.310
	11	-1.972	1.143	-4.221	.276

### ***General Linear Model with Level of Total CSR for ROA Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total CSR Level	1	Low	81
	2	Medium	159
	3	High	81

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	3227.257	10	322.726	8.940	.000	.027	1.000
Sphericity Assumed							



year * CSRtot_level	Greenhouse-Geisser	3227.257	7.034	458.807	8.940	.000	.027	1.000
	Huynh-Feldt	3227.257	7.255	444.859	8.940	.000	.027	1.000
	Lower-bound	3227.257	1.000	3227.257	8.940	.003	.027	.846
	Sphericity Assumed	612.612	20	30.631	.849	.655	.005	.680
	Greenhouse-Geisser	612.612	14.068	43.546	.849	.616	.005	.561
	Huynh-Feldt	612.612	14.509	42.223	.849	.620	.005	.571
	Lower-bound	612.612	2.000	306.306	.849	.429	.005	.195
Error(year)	Sphericity Assumed	114793.320	3180	36.099				
	Greenhouse-Geisser	114793.320	2236.820	51.320				
	Huynh-Feldt	114793.320	2306.951	49.760				
	Lower-bound	114793.320	318.000	360.985				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	921.486	1	921.486	41.940	.000	.117	1.000
	Quadratic	785.406	1	785.406	37.418	.000	.105	1.000
	Cubic	4.662	1	4.662	.152	.696	.000	.068
year * CSRtot_level	Linear	46.058	2	23.029	1.048	.352	.007	.233
	Quadratic	14.807	2	7.404	.353	.703	.002	.106
	Cubic	38.238	2	19.119	.625	.536	.004	.154
Error(year)	Linear	6986.990	318	21.972				
	Quadratic	6674.918	318	20.990				
	Cubic	9725.155	318	30.582				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRtot_level	14.472	2	7.236	1.099	.334	.007	.243
Error	2093.653	318	6.584				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	-.833	.346	-1.514	-.153
2	.667	.341	-.005	1.338
3	1.106	.253	.608	1.605
4	.062	.225	-.381	.505
5	-.054	.267	-.579	.472
6	-.173	.278	-.720	.373
7	-.246	.345	-.925	.433
8	.513	.353	-.183	1.208
9	.218	.433	-.634	1.071
10	-2.559	.415	-3.376	-1.743
11	-1.598	.402	-2.389	-.806

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-1.500	.615	.570	-3.554	.554
	3	-1.940(*)	.440	.001	-3.408	-.471
	4	-.896	.410	.807	-2.264	.473
	5	-.780	.460	.995	-2.316	.757
	6	-.660	.477	1.000	-2.254	.934
	7	-.587	.460	1.000	-2.124	.949
	8	-1.346	.462	.190	-2.890	.198
	9	-1.052	.562	.971	-2.931	.827
	10	1.726	.547	.092	-.102	3.554
	11	.764	.556	1.000	-1.092	2.621
2	1	1.500	.615	.570	-.554	3.554
	3	-.440	.453	1.000	-1.952	1.073
	4	.604	.423	1.000	-.807	2.016
	5	.720	.419	.993	-.680	2.120
	6	.840	.413	.910	-.540	2.219
	7	.913	.530	.993	-.858	2.684
	8	.154	.513	1.000	-1.560	1.868
	9	.448	.528	1.000	-1.316	2.212
	10	3.226(*)	.562	.000	1.348	5.104
	11	2.264(*)	.502	.001	.585	3.943
3	1	1.940(*)	.440	.001	.471	3.408
	2	.440	.453	1.000	-1.073	1.952
	4	1.044	.355	.176	-.143	2.231
	5	1.160	.388	.153	-.136	2.456
	6	1.279(*)	.370	.034	.042	2.516
	7	1.352	.440	.118	-.117	2.821
	8	.594	.428	1.000	-.835	2.023
	9	.888	.490	.982	-.748	2.524

4	10	3.665(*)	.523	.000	1.919	5.412
	11	2.704(*)	.503	.000	1.025	4.383
	1	.896	.410	.807	-.473	2.264
	2	-.604	.423	1.000	-2.016	.807
	3	-1.044	.355	.176	-2.231	.143
	5	.116	.430	1.000	-1.320	1.552
	6	.235	.363	1.000	-.978	1.448
	7	.308	.411	1.000	-1.067	1.683
	8	-.450	.448	1.000	-1.947	1.046
	9	-.156	.467	1.000	-1.718	1.406
	10	2.621(*)	.481	.000	1.013	4.230
5	11	1.660(*)	.486	.039	.035	3.285
	1	.780	.460	.995	-.757	2.316
	2	-.720	.419	.993	-2.120	.680
	3	-1.160	.388	.153	-2.456	.136
	4	-.116	.430	1.000	-1.552	1.320
	6	.120	.404	1.000	-1.230	1.469
	7	.192	.453	1.000	-1.323	1.708
	8	-.566	.433	1.000	-2.012	.879
	9	-.272	.538	1.000	-2.071	1.527
	10	2.506(*)	.471	.000	.931	4.080
	11	1.544	.476	.069	-.045	3.133
6	1	.660	.477	1.000	-.934	2.254
	2	-.840	.413	.910	-2.219	.540
	3	-1.279(*)	.370	.034	-2.516	-.042
	4	-.235	.363	1.000	-1.448	.978
	5	-.120	.404	1.000	-1.469	1.230
	7	.073	.543	1.000	-1.741	1.887
	8	-.686	.472	1.000	-2.262	.890
	9	-.392	.500	1.000	-2.062	1.279
	10	2.386(*)	.516	.000	.662	4.110
	11	1.424	.502	.236	-.255	3.103
	1	.587	.460	1.000	-.949	2.124
7	1					

8	2	-.913	.530	.993	-2.684	.858
	3	-1.352	.440	.118	-2.821	.117
	4	-.308	.411	1.000	-1.683	1.067
	5	-.192	.453	1.000	-1.708	1.323
	6	-.073	.543	1.000	-1.887	1.741
	8	-.759	.564	1.000	-2.643	1.125
	9	-.464	.593	1.000	-2.446	1.517
	10	2.313(*)	.522	.001	.569	4.058
	11	1.351	.513	.386	-.362	3.065
	1	1.346	.462	.190	-.198	2.890
	2	-.154	.513	1.000	-1.868	1.560
9	3	-.594	.428	1.000	-2.023	.835
	4	.450	.448	1.000	-1.046	1.947
	5	.566	.433	1.000	-.879	2.012
	6	.686	.472	1.000	-.890	2.262
	7	.759	.564	1.000	-1.125	2.643
	9	.294	.664	1.000	-1.923	2.512
	10	3.072(*)	.544	.000	1.254	4.890
	11	2.110(*)	.514	.003	.394	3.827
	1	1.052	.562	.971	-.827	2.931
	2	-.448	.528	1.000	-2.212	1.316
	3	-.888	.490	.982	-2.524	.748
10	4	.156	.467	1.000	-1.406	1.718
	5	.272	.538	1.000	-1.527	2.071
	6	.392	.500	1.000	-1.279	2.062
	7	.464	.593	1.000	-1.517	2.446
	8	-.294	.664	1.000	-2.512	1.923
	10	2.778(*)	.731	.009	.336	5.219
	11	1.816	.630	.207	-.289	3.921
	1	-1.726	.547	.092	-3.554	.102
	2	-3.226(*)	.562	.000	-5.104	-1.348
	3	-3.665(*)	.523	.000	-5.412	-1.919
	4	-2.621(*)	.481	.000	-4.230	-1.013

11	5	-2.506(*)	.471	.000	-4.080	-.931
	6	-2.386(*)	.516	.000	-4.110	-.662
	7	-2.313(*)	.522	.001	-4.058	-.569
	8	-3.072(*)	.544	.000	-4.890	-1.254
	9	-2.778(*)	.731	.009	-5.219	-.336
	11	-.962	.615	.999	-3.018	1.095
	1	-.764	.556	1.000	-2.621	1.092
	2	-2.264(*)	.502	.001	-3.943	-.585
	3	-2.704(*)	.503	.000	-4.383	-1.025
	4	-1.660(*)	.486	.039	-3.285	-.035
	5	-1.544	.476	.069	-3.133	.045
	6	-1.424	.502	.236	-3.103	.255
	7	-1.351	.513	.386	-3.065	.362
	8	-2.110(*)	.514	.003	-3.827	-.394
	9	-1.816	.630	.207	-3.921	.289
	10	.962	.615	.999	-1.095	3.018

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	-.342	.086	-.512	-.173
Medium	-.281	.061	-.402	-.161
High	-.166	.086	-.335	.003

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total CSR Level	(J) Total CSR Level				Upper Bound	Lower Bound
Low	Medium	-.061	.106	.917	-.315	.192
	High	-.176	.122	.382	-.468	.116
Medium	Low	.061	.106	.917	-.192	.315
	High	-.115	.106	.621	-.369	.138
High	Low	.176	.122	.382	-.116	.468
	Medium	.115	.106	.621	-.138	.369

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1.316	2	.658	1.099	.334	.007	.243
Error	190.332	318	.599				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total CSR Level	year			Lower Bound	Upper Bound
Low	1	-1.457	.655	-2.745	-.168
	2	1.854	.646	.583	3.125
	3	.513	.480	-.432	1.457
	4	.411	.426	-.427	1.250
	5	.003	.506	-.992	.998

Medium	6	-.499	.526	-1.534	.536
	7	-.223	.654	-1.510	1.063
	8	.581	.669	-.736	1.898
	9	-.302	.821	-1.917	1.312
	10	-2.425	.786	-3.971	-.878
	11	-2.224	.762	-3.722	-.725
	1	-.480	.467	-1.400	.439
	2	.639	.461	-.269	1.546
	3	1.121	.343	.447	1.795
	4	-.433	.304	-1.032	.166
	5	.155	.361	-.555	.866
High	6	-.372	.376	-1.111	.367
	7	-.085	.467	-1.004	.833
	8	.161	.478	-.779	1.101
	9	.510	.586	-.642	1.662
	10	-2.396	.561	-3.500	-1.293
	11	-1.914	.544	-2.984	-.845
	1	-.563	.655	-1.852	.725
	2	-.493	.646	-1.764	.778
	3	1.685	.480	.741	2.629
	4	.208	.426	-.630	1.047
	5	-.319	.506	-1.315	.676
	6	.351	.526	-.684	1.386
	7	-.430	.654	-1.716	.857
	8	.796	.669	-.522	2.113
	9	.447	.821	-1.167	2.062
	10	-2.857	.786	-4.403	-1.310
	11	-.655	.762	-2.153	.844



## APPENDIX Q

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for Sales Annual Growth

#### *General Linear Model with Level of Community Relations for Sales Annual Growth*

##### Between-Subjects Factors

	Value Label	N
Total Community Level	1 Low	185
	2 Medium	86
	3 High	77

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	783790288.464	10	78379028.846	7.678	.000	.022	1.000
	Greenhouse-Geisser	783790288.464	4.445	176329543.093	7.678	.000	.022	.999
	Huynh-Feldt	783790288.464	4.536	172780583.566	7.678	.000	.022	.999
	Lower-bound	783790288.464	1.000	783790288.464	7.678	.006	.022	.789
year * comtot_lvi	Sphericity Assumed	279199358.078	20	13959967.904	1.367	.127	.008	.915
	Greenhouse-Geisser	279199358.078	8.890	31405782.877	1.367	.199	.008	.668
	Huynh-Feldt	279199358.078	9.073	30773683.171	1.367	.197	.008	.675
	Lower-bound	279199358.078	2.000	139599679.039	1.367	.256	.008	.294
Error(year)	Sphericity Assumed	35219089927.154	3450	10208431.863				
	Greenhouse-Geisser	35219089927.154	1533.536	22965940.668				
	Huynh-Feldt	35219089927.154	1565.035	22503708.460				
	Lower-bound	35219089927.154	345.000	102084318.629				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6014106.784	1	6014106.784	.729	.394	.002	.136
	Quadratic	308259789.515	1	308259789.515	28.252	.000	.076	1.000
	Cubic	182644370.082	1	182644370.082	12.583	.000	.035	.943
year * comtot_lvl	Linear	48630932.265	2	24315466.132	2.947	.054	.017	.572
	Quadratic	42146870.813	2	21073435.406	1.931	.147	.011	.400
	Cubic	41265029.599	2	20632514.800	1.421	.243	.008	.304
Error(year)	Linear	2846338842.412	345	8250257.514				
	Quadratic	3764313740.987	345	10911054.322				
	Cubic	5007873213.396	345	14515574.532				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	10377061.066	2	5188530.533	.288	.750	.002	.096
Error	6216887242.381	345	18019963.021				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	94.381	80.634	-64.215	252.976
2	-51.091	99.426	-246.648	144.467
3	468.492	113.329	245.589	691.395
4	437.428	123.272	194.970	679.887
5	303.559	136.098	35.873	571.245
6	773.868	145.746	487.206	1060.530
7	275.578	169.122	-57.061	608.217
8	1170.936	261.111	657.367	1684.505
9	1237.094	233.396	778.035	1696.153
10	88.206	281.053	-464.588	640.999
11	-468.928	293.568	-1046.335	108.480

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	145.471	93.135	.999	-165.519	456.461
	3	-374.111(*)	86.510	.001	-662.981	-85.241
	4	-343.047	113.388	.137	-721.668	35.573
	5	-209.178	150.486	1.000	-711.674	293.318
	6	-679.487(*)	153.745	.001	-1192.866	-166.108
	7	-181.198	180.695	1.000	-784.565	422.169
	8	-1076.555(*)	259.694	.002	-1943.711	-209.399
	9	-1142.713(*)	243.624	.000	-1956.210	-329.217
	10	6.175	285.710	1.000	-947.852	960.202

2	11	563.308	290.634	.951	-407.162	1533.779
	1	-145.471	93.135	.999	-456.461	165.519
	3	-519.582(*)	111.232	.000	-891.003	-148.162
	4	-488.519(*)	139.115	.027	-953.043	-23.995
	5	-354.649	160.429	.787	-890.346	181.047
	6	-824.958(*)	169.044	.000	-1389.422	-260.495
	7	-326.669	162.510	.921	-869.315	215.977
	8	-1222.027(*)	286.577	.001	-2178.950	-265.103
	9	-1288.184(*)	256.319	.000	-2144.072	-432.297
	10	-139.296	298.936	1.000	-1137.487	858.894
	11	417.837	291.841	1.000	-556.663	1392.337
3	1	374.111(*)	86.510	.001	85.241	662.981
	2	519.582(*)	111.232	.000	148.162	891.003
	4	31.064	132.251	1.000	-410.543	472.670
	5	164.933	179.514	1.000	-434.490	764.356
	6	-305.376	169.859	.985	-872.560	261.808
	7	192.914	211.859	1.000	-514.516	900.343
	8	-702.444	251.384	.261	-1541.851	136.962
	9	-768.602	241.080	.082	-1573.602	36.398
	10	380.286	314.322	1.000	-669.281	1429.854
	11	937.419	297.788	.094	-56.940	1931.779
4	1	343.047	113.388	.137	-35.573	721.668
	2	488.519(*)	139.115	.027	23.995	953.043
	3	-31.064	132.251	1.000	-472.670	410.543
	5	133.869	175.136	1.000	-450.935	718.674
	6	-336.440	182.844	.977	-946.982	274.103
	7	161.850	212.060	1.000	-546.249	869.949
	8	-733.508	248.155	.168	-1562.133	95.117
	9	-799.666(*)	229.754	.031	-1566.849	-32.482
	10	349.222	317.823	1.000	-712.036	1410.480
	11	906.356	306.523	.167	-117.169	1929.881
5	1	209.178	150.486	1.000	-293.318	711.674
	2	354.649	160.429	.787	-181.047	890.346

6	3	-164.933	179.514	1.000	-764.356	434.490
	4	-133.869	175.136	1.000	-718.674	450.935
	6	-470.309	176.464	.359	-1059.549	118.931
	7	27.981	208.744	1.000	-669.046	725.007
	8	-867.377	276.917	.098	-1792.045	57.290
	9	-933.535(*)	245.246	.009	-1752.449	-114.621
	10	215.353	286.407	1.000	-741.001	1171.707
	11	772.486	298.965	.430	-225.802	1770.775
	1	679.487(*)	153.745	.001	166.108	1192.866
	2	824.958(*)	169.044	.000	260.495	1389.422
	3	305.376	169.859	.985	-261.808	872.560
7	4	336.440	182.844	.977	-274.103	946.982
	5	470.309	176.464	.359	-118.931	1059.549
	7	498.290	186.047	.348	-122.947	1119.526
	8	-397.068	267.864	1.000	-1291.506	497.370
	9	-463.226	233.200	.932	-1241.915	315.463
	10	685.662	317.673	.829	-375.094	1746.418
	11	1242.795(*)	336.669	.014	118.608	2366.983
	1	181.198	180.695	1.000	-422.169	784.565
	2	326.669	162.510	.921	-215.977	869.315
	3	-192.914	211.859	1.000	-900.343	514.516
	4	-161.850	212.060	1.000	-869.949	546.249
8	5	-27.981	208.744	1.000	-725.007	669.046
	6	-498.290	186.047	.348	-1119.526	122.947
	8	-895.358	343.773	.412	-2043.267	252.552
	9	-961.516	305.044	.093	-1980.104	57.072
	10	187.373	296.421	1.000	-802.421	1177.166
	11	744.506	330.918	.753	-360.479	1849.491
	1	1076.555(*)	259.694	.002	209.399	1943.711
	2	1222.027(*)	286.577	.001	265.103	2178.950
	3	702.444	251.384	.261	-136.962	1541.851
	4	733.508	248.155	.168	-95.117	1562.133
	5	867.377	276.917	.098	-57.290	1792.045

9	6	397.068	267.864	1.000	-497.370	1291.506
	7	895.358	343.773	.412	-252.552	2043.267
	9	-66.158	228.853	1.000	-830.331	698.016
	10	1082.730	416.068	.414	-306.581	2472.041
	11	1639.864(*)	400.486	.003	302.583	2977.144
	1	1142.713(*)	243.624	.000	329.217	1956.210
	2	1288.184(*)	256.319	.000	432.297	2144.072
	3	768.602	241.080	.082	-36.398	1573.602
	4	799.666(*)	229.754	.031	32.482	1566.849
	5	933.535(*)	245.246	.009	114.621	1752.449
	6	463.226	233.200	.932	-315.463	1241.915
10	7	961.516	305.044	.093	-57.072	1980.104
	8	66.158	228.853	1.000	-698.016	830.331
	10	1148.888(*)	339.314	.043	15.870	2281.906
	11	1706.021(*)	423.298	.004	292.566	3119.477
	1	-6.175	285.710	1.000	-960.202	947.852
	2	139.296	298.936	1.000	-858.894	1137.487
	3	-380.286	314.322	1.000	-1429.854	669.281
	4	-349.222	317.823	1.000	-1410.480	712.036
	5	-215.353	286.407	1.000	-1171.707	741.001
	6	-685.662	317.673	.829	-1746.418	375.094
	7	-187.373	296.421	1.000	-1177.166	802.421
11	8	-1082.730	416.068	.414	-2472.041	306.581
	9	-1148.888(*)	339.314	.043	-2281.906	-15.870
	11	557.133	461.055	1.000	-982.398	2096.665
	1	-563.308	290.634	.951	-1533.779	407.162
	2	-417.837	291.841	1.000	-1392.337	556.663
	3	-937.419	297.788	.094	-1931.779	56.940
	4	-906.356	306.523	.167	-1929.881	117.169
	5	-772.486	298.965	.430	-1770.775	225.802
	6	-1242.795(*)	336.669	.014	-2366.983	-118.608
	7	-744.506	330.918	.753	-1849.491	360.479
	8	-1639.864(*)	400.486	.003	-2977.144	-302.583

9	-1706.021(*)	423.298	.004	-3119.477	-292.566
10	-557.133	461.055	1.000	-2096.665	982.398

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	369.473	94.101	184.388	554.557
Medium	333.175	138.017	61.715	604.635
High	478.131	145.860	191.245	765.018

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Community Level	(J) Total Community Level				Upper Bound	Lower Bound
Low	Medium	36.298	167.044	.995	-364.505	437.100
	High	-108.659	173.580	.897	-525.145	307.827
Medium	Low	-36.298	167.044	.995	-437.100	364.505
	High	-144.956	200.807	.852	-626.771	336.858
High	Low	108.659	173.580	.897	-307.827	525.145
	Medium	144.956	200.807	.852	-336.858	626.771

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	943369.188	2	471684.594	.288	.750	.002	.096
Error	565171567.490	345	1638178.456				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

Total Community Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	120.860	102.646	-81.032	322.751
	2	227.655	126.569	-21.289	476.600
	3	544.625	144.268	260.871	828.380
	4	608.462	156.925	299.813	917.112
	5	256.828	173.252	-83.936	597.592
	6	535.420	185.534	170.500	900.341
	7	315.840	215.291	-107.609	739.289
	8	742.474	332.393	88.701	1396.246
	9	1000.838	297.113	416.457	1585.219
	10	450.701	357.780	-253.004	1154.406
	11	-739.506	373.711	-1474.544	-4.467
Medium	1	225.736	150.550	-70.375	521.847
	2	121.604	185.637	-243.518	486.727
	3	578.301	211.595	162.122	994.480
	4	567.219	230.159	114.528	1019.910
	5	-16.499	254.107	-516.292	483.294
	6	630.030	272.120	94.808	1165.253
	7	165.558	315.765	-455.508	786.624



High	8	851.271	487.516	-107.607	1810.148
	9	1148.412	435.771	291.309	2005.514
	10	-590.958	524.751	-1623.072	441.155
	11	-15.748	548.116	-1093.818	1062.321
	1	-63.454	159.105	-376.392	249.484
	2	-502.531	196.186	-888.403	-116.660
	3	282.549	223.619	-157.280	722.378
	4	136.603	243.238	-341.813	615.020
	5	670.347	268.547	142.152	1198.542
	6	1156.153	287.584	590.515	1721.790
	7	345.337	333.709	-311.023	1001.696
	8	1919.064	515.220	905.696	2932.432
	9	1562.032	460.535	656.223	2467.841
	10	404.874	554.571	-685.891	1495.639
	11	-651.529	579.264	-1790.862	487.804

### ***General Linear Model with Level of Diversity for Sales Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total Diversity	1	Low
Level	2	Medium
	3	High

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	917508120.072	10	91750812.007	9.056	.000	.026	1.000
	Greenhouse-Geisser	917508120.072	4.474	205079329.880	9.056	.000	.026	1.000
	Huynh-Feldt	917508120.072	4.566	200933002.484	9.056	.000	.026	1.000

year * divtot_lvi	Lower-bound	917508120.072	1.000	917508120.072	9.056	.003	.026	.851
	Sphericity Assumed	543320706.126	20	27166035.306	2.681	.000	.015	.999
	Greenhouse-Geisser	543320706.126	8.948	60720904.744	2.681	.004	.015	.953
	Huynh-Feldt	543320706.126	9.132	59493239.572	2.681	.004	.015	.956
Error(year)	Lower-bound	543320706.126	2.000	271660353.063	2.681	.070	.015	.530
	Sphericity Assumed	34954968579.106	3450	10131874.950				
	Greenhouse-Geisser	34954968579.106	1543.502	22646536.633				
	Huynh-Feldt	34954968579.106	1575.352	22188665.256				
	Lower-bound	34954968579.106	345.000	101318749.505				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	190.064	1	190.064	.000	.996	.000	.050
	Quadratic	347275049.126	1	347275049.126	32.215	.000	.085	1.000
	Cubic	190367321.944	1	190367321.944	13.118	.000	.037	.951
year * divtot_lvi	Linear	13328039.117	2	6664019.559	.798	.451	.005	.186
	Quadratic	87446220.690	2	43723110.345	4.056	.018	.023	.720
	Cubic	42689897.023	2	21344948.511	1.471	.231	.008	.314
Error(year)	Linear	2881641735.560	345	8352584.741				
	Quadratic	3719014391.109	345	10779751.858				
	Cubic	5006448345.972	345	14511444.481				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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divtot_lvl	35130926.503	2	17565463.252	.979	.377	.006	.220
Error	6192133376.943	345	17948212.687				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	108.676	76.601	-41.988	259.340
2	12.842	95.350	-174.698	200.382
3	547.158	106.494	337.698	756.617
4	497.212	117.186	266.722	727.701
5	268.390	129.637	13.410	523.369
6	742.663	137.677	471.872	1013.454
7	214.334	159.350	-99.086	527.754
8	1124.200	246.857	638.666	1609.734
9	1252.297	219.676	820.225	1684.369
10	29.068	264.634	-491.431	549.566
11	-565.788	278.460	-1113.482	-18.094

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

1	2	95.834	88.533	1.000	-199.792	391.460
	3	-438.482(*)	80.919	.000	-708.683	-168.281
	4	-388.536(*)	107.688	.019	-748.122	-28.950
	5	-159.714	143.882	1.000	-640.158	320.730
	6	-633.987(*)	146.175	.001	-1122.088	-145.886
	7	-105.658	170.552	1.000	-675.155	463.839
	8	-1015.524(*)	246.431	.003	-1838.393	-192.656
	9	-1143.621(*)	230.062	.000	-1911.833	-375.410
	10	79.608	269.277	1.000	-819.548	978.764
	11	674.464	275.298	.559	-244.796	1593.723
2	1	-95.834	88.533	1.000	-391.460	199.792
	3	-534.315(*)	103.293	.000	-879.225	-189.406
	4	-484.370(*)	131.416	.014	-923.188	-45.551
	5	-255.547	154.415	.997	-771.161	260.066
	6	-729.821(*)	161.000	.000	-1267.423	-192.218
	7	-201.492	154.565	1.000	-717.607	314.624
	8	-1111.358(*)	272.075	.003	-2019.857	-202.858
	9	-1239.455(*)	241.828	.000	-2046.953	-431.957
	10	-16.225	283.293	1.000	-962.181	929.730
	11	578.630	277.492	.880	-347.957	1505.217
3	1	438.482(*)	80.919	.000	168.281	708.683
	2	534.315(*)	103.293	.000	189.406	879.225
	4	49.946	124.877	1.000	-367.037	466.929
	5	278.768	170.456	.997	-290.408	847.945
	6	-195.505	162.222	1.000	-737.189	346.179
	7	332.824	198.533	.996	-330.108	995.756
	8	-577.042	239.994	.605	-1378.416	224.332
	9	-705.139	228.949	.116	-1469.633	59.354
	10	518.090	294.246	.989	-464.440	1500.620
	11	1112.946(*)	281.199	.005	173.981	2051.910
4	1	388.536(*)	107.688	.019	28.950	748.122
	2	484.370(*)	131.416	.014	45.551	923.188
	3	-49.946	124.877	1.000	-466.929	367.037

5	5	228.822	167.574	1.000	-330.733	788.378
	6	-245.451	174.613	1.000	-828.509	337.607
	7	282.878	200.581	1.000	-386.890	952.646
	8	-626.988	236.575	.372	-1416.946	162.970
	9	-755.085(*)	217.614	.032	-1481.731	-28.440
	10	468.144	299.766	.999	-532.817	1469.106
	11	1063.000(*)	290.391	.016	93.342	2032.658
	1	159.714	143.882	1.000	-320.730	640.158
	2	255.547	154.415	.997	-260.066	771.161
	3	-278.768	170.456	.997	-847.945	290.408
	4	-228.822	167.574	1.000	-788.378	330.733
6	6	-474.273	166.616	.228	-1030.630	82.083
	7	54.056	197.673	1.000	-606.002	714.114
	8	-855.810	261.141	.062	-1727.800	16.179
	9	-983.908(*)	230.825	.001	-1754.665	-213.151
	10	239.322	269.600	1.000	-660.911	1139.554
	11	834.178	284.150	.178	-114.641	1782.996
	1	633.987(*)	146.175	.001	145.886	1122.088
	2	729.821(*)	161.000	.000	192.218	1267.423
	3	195.505	162.222	1.000	-346.179	737.189
	4	245.451	174.613	1.000	-337.607	828.509
	5	474.273	166.616	.228	-82.083	1030.630
7	7	528.329	173.984	.132	-52.630	1109.289
	8	-381.537	253.964	1.000	-1229.562	466.488
	9	-509.634	220.867	.699	-1247.141	227.873
	10	713.595	297.349	.609	-279.297	1706.488
	11	1308.451(*)	318.197	.003	245.944	2370.958
	1	105.658	170.552	1.000	-463.839	675.155
	2	201.492	154.565	1.000	-314.624	717.607
	3	-332.824	198.533	.996	-995.756	330.108
	4	-282.878	200.581	1.000	-952.646	386.890
	5	-54.056	197.673	1.000	-714.114	606.002
	6	-528.329	173.984	.132	-1109.289	52.630

8	8	-909.866	323.681	.250	-1990.684	170.952
	9	-1037.963(*)	286.138	.018	-1993.421	-82.506
	10	185.266	280.965	1.000	-752.918	1123.450
	11	780.122	313.725	.523	-267.453	1827.696
	1	1015.524(*)	246.431	.003	192.656	1838.393
	2	1111.358(*)	272.075	.003	202.858	2019.857
	3	577.042	239.994	.605	-224.332	1378.416
	4	626.988	236.575	.372	-162.970	1416.946
	5	855.810	261.141	.062	-16.179	1727.800
	6	381.537	253.964	1.000	-466.488	1229.562
	7	909.866	323.681	.250	-170.952	1990.684
9	9	-128.097	217.526	1.000	-854.449	598.255
	10	1095.132	389.739	.251	-206.262	2396.527
	11	1689.988(*)	378.141	.001	427.320	2952.656
	1	1143.621(*)	230.062	.000	375.410	1911.833
	2	1239.455(*)	241.828	.000	431.957	2046.953
	3	705.139	228.949	.116	-59.354	1469.633
	4	755.085(*)	217.614	.032	28.440	1481.731
	5	983.908(*)	230.825	.001	213.151	1754.665
	6	509.634	220.867	.699	-227.873	1247.141
	7	1037.963(*)	286.138	.018	82.506	1993.421
	8	128.097	217.526	1.000	-598.255	854.449
10	10	1223.229(*)	315.780	.007	168.794	2277.665
	11	1818.085(*)	399.436	.000	484.311	3151.860
	1	-79.608	269.277	1.000	-978.764	819.548
	2	16.225	283.293	1.000	-929.730	962.181
	3	-518.090	294.246	.989	-1500.620	464.440
	4	-468.144	299.766	.999	-1469.106	532.817
	5	-239.322	269.600	1.000	-1139.554	660.911
	6	-713.595	297.349	.609	-1706.488	279.297
	7	-185.266	280.965	1.000	-1123.450	752.918
	8	-1095.132	389.739	.251	-2396.527	206.262
	9	-1223.229(*)	315.780	.007	-2277.665	-168.794

11	11	594.856	437.830	1.000	-867.124	2056.835
	1	-674.464	275.298	.559	-1593.723	244.796
	2	-578.630	277.492	.880	-1505.217	347.957
	3	-1112.946(*)	281.199	.005	-2051.910	-173.981
	4	-1063.000(*)	290.391	.016	-2032.658	-93.342
	5	-834.178	284.150	.178	-1782.996	114.641
	6	-1308.451(*)	318.197	.003	-2370.958	-245.944
	7	-780.122	313.725	.523	-1827.696	267.453
	8	-1689.988(*)	378.141	.001	-2952.656	-427.320
	9	-1818.085(*)	399.436	.000	-3151.860	-484.311
	10	-594.856	437.830	1.000	-2056.835	867.124

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Diversity Level

### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	249.067	118.600	15.796	482.337
Medium	451.851	106.079	243.208	660.495
High	453.005	136.948	183.647	722.362

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound

Low	Medium	-202.784	159.119	.494	-584.572	179.003
	High	-203.938	181.165	.597	-638.622	230.746
Medium	Low	202.784	159.119	.494	-179.003	584.572
	High	-1.154	173.227	1.000	-416.791	414.484
High	Low	203.938	181.165	.597	-230.746	638.622
	Medium	1.154	173.227	1.000	-414.484	416.791

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3193720.591	2	1596860.296	.979	.377	.006	.220
Error	562921216.086	345	1631655.699				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Diversity Level \* year

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	16.185	129.824	-239.160	271.530
	2	129.494	161.599	-188.349	447.337
	3	281.432	180.486	-73.559	636.424
	4	311.898	198.607	-78.736	702.531
	5	169.948	219.709	-262.190	602.086
	6	335.210	233.334	-123.726	794.147
	7	184.860	270.066	-346.324	716.044
	8	463.528	418.373	-359.354	1286.410
	9	684.716	372.306	-47.559	1416.991
	10	304.829	448.501	-577.312	1186.969



Medium	11	-142.367	471.934	-1070.597	785.863
	1	138.839	116.118	-89.549	367.227
	2	116.761	144.538	-167.526	401.048
	3	366.831	161.432	49.317	684.345
	4	569.785	177.640	220.391	919.178
	5	391.946	196.514	5.430	778.462
	6	667.293	208.700	256.808	1077.778
	7	654.435	241.555	179.330	1129.541
	8	887.522	374.204	151.514	1623.530
	9	991.182	333.001	336.215	1646.149
	10	815.620	401.151	26.609	1604.630
High	11	-629.850	422.111	-1460.084	200.385
	1	171.003	149.907	-123.844	465.851
	2	-207.729	186.598	-574.742	159.285
	3	993.210	208.407	583.301	1403.119
	4	609.953	229.332	158.888	1061.018
	5	243.274	253.698	-255.716	742.264
	6	1225.485	269.431	695.551	1755.419
	7	-196.294	311.846	-809.652	417.064
	8	2021.550	483.095	1071.368	2971.732
	9	2080.993	429.902	1235.435	2926.552
	10	-1033.246	517.884	-2051.854	-14.638
	11	-925.147	544.943	-1996.975	146.681

***General Linear Model with Level of Employee Relations for Sales Annual Growth***

### Between-Subjects Factors

		Value Label	N
Total Emp	1	Low	155
Relations	2	Medium	111
Level	3	High	82

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	873756771.013	10	87375677.101	8.619	.000	.024	1.000
	Greenhouse-Geisser	873756771.013	4.495	194363050.720	8.619	.000	.024	1.000
	Huynh-Feldt	873756771.013	4.589	190420148.982	8.619	.000	.024	1.000
	Lower-bound	873756771.013	1.000	873756771.013	8.619	.004	.024	.833
year * emptot_lvl	Sphericity Assumed	522195958.273	20	26109797.914	2.575	.000	.015	.999
	Greenhouse-Geisser	522195958.273	8.991	58080007.441	2.575	.006	.015	.944
	Huynh-Feldt	522195958.273	9.177	56901780.605	2.575	.006	.015	.948
	Lower-bound	522195958.273	2.000	261097979.136	2.575	.078	.015	.513
Error(year)	Sphericity Assumed	34976093326.959	3450	10137998.066				
	Greenhouse-Geisser	34976093326.959	1550.943	22551495.996				
	Huynh-Feldt	34976093326.959	1583.058	22094010.211				
	Lower-bound	34976093326.959	345.000	101379980.658				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	403559.776	1	403559.776	.048	.826	.000	.056
	Quadratic	327626704.670	1	327626704.670	30.232	.000	.081	1.000

year * emptot_lvl	Cubic	203339585.118	1	203339585.118	14.423	.000	.040	.966
	Linear	12541979.125	2	6270989.562	.751	.473	.004	.177
	Quadratic	67698957.700	2	33849478.850	3.124	.045	.018	.599
Error(year)	Cubic	185237419.384	2	92618709.692	6.570	.002	.037	.909
	Linear	2882427795.552	345	8354863.176				
	Quadratic	3738761654.099	345	10836990.302				
	Cubic	4863900823.611	345	14098263.257				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	73864567.216	2	36932283.608	2.071	.128	.012	.425
Error	6153399736.230	345	17835941.264				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
1	128.960	77.440	-23.353	281.273
2	46.266	96.762	-144.051	236.583
3	567.087	107.709	355.239	778.935
4	512.113	118.729	278.589	745.637
5	266.406	131.232	8.290	524.523
6	724.762	139.972	449.456	1000.068
7	292.186	162.303	-27.041	611.413
8	1147.281	249.023	657.486	1637.076
9	1277.003	221.078	842.173	1711.834
10	141.160	269.510	-388.930	671.251
11	-558.261	280.350	-1109.671	-6.850

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	82.694	90.108	1.000	-218.189	383.577
	3	-438.127(*)	82.207	.000	-712.627	-163.627
	4	-383.152(*)	109.012	.027	-747.160	-19.145
	5	-137.446	145.404	1.000	-622.972	348.080
	6	-595.802(*)	148.261	.004	-1090.867	-100.737
	7	-163.226	173.586	1.000	-742.854	416.403
	8	-1018.320(*)	248.610	.003	-1848.464	-188.177
	9	-1148.043(*)	231.710	.000	-1921.758	-374.327
	10	-12.200	274.124	1.000	-927.541	903.140
	11	687.221	277.324	.531	-238.804	1613.246
2	1	-82.694	90.108	1.000	-383.577	218.189
	3	-520.821(*)	106.295	.000	-875.756	-165.887

3	4	-465.847(*)	133.573	.030	-911.868	-19.825
	5	-220.140	156.352	1.000	-742.221	301.941
	6	-678.496(*)	164.345	.003	-1227.268	-129.723
	7	-245.920	156.994	.999	-770.145	278.306
	8	-1101.014(*)	275.476	.004	-2020.868	-181.160
	9	-1230.737(*)	244.499	.000	-2047.155	-414.319
	10	-94.894	287.019	1.000	-1053.293	863.505
	11	604.527	279.396	.825	-328.416	1537.470
	1	438.127(*)	82.207	.000	163.627	712.627
	2	520.821(*)	106.295	.000	165.887	875.756
	4	54.974	126.310	1.000	-366.793	476.742
4	5	300.681	172.188	.991	-274.281	875.643
	6	-157.675	163.045	1.000	-702.104	386.755
	7	274.901	203.075	1.000	-403.194	952.997
	8	-580.193	240.641	.598	-1383.728	223.342
	9	-709.916	229.189	.110	-1475.212	55.380
	10	425.927	300.302	1.000	-576.825	1428.678
	11	1125.348(*)	284.418	.005	175.633	2075.063
	1	383.152(*)	109.012	.027	19.145	747.160
	2	465.847(*)	133.573	.030	19.825	911.868
	3	-54.974	126.310	1.000	-476.742	366.793
	5	245.706	169.489	1.000	-320.242	811.655
5	6	-212.649	176.862	1.000	-803.217	377.918
	7	219.927	203.845	1.000	-460.741	900.594
	8	-635.168	238.412	.360	-1431.262	160.926
	9	-764.890(*)	218.901	.029	-1495.835	-33.946
	10	370.952	305.108	1.000	-647.849	1389.754
	11	1070.373(*)	292.800	.016	92.670	2048.077
	1	137.446	145.404	1.000	-348.080	622.972
	2	220.140	156.352	1.000	-301.941	742.221
	3	-300.681	172.188	.991	-875.643	274.281
	4	-245.706	169.489	1.000	-811.655	320.242
	6	-458.356	169.103	.322	-1023.015	106.303

6	7	-25.780	200.448	1.000	-695.105	643.546
	8	-880.874(*)	263.460	.049	-1760.606	-1.142
	9	-1010.597(*)	232.406	.001	-1786.634	-234.559
	10	125.246	274.435	1.000	-791.135	1041.626
	11	824.667	286.104	.206	-130.676	1780.009
	1	595.802(*)	148.261	.004	100.737	1090.867
	2	678.496(*)	164.345	.003	129.723	1227.268
	3	157.675	163.045	1.000	-386.755	702.104
	4	212.649	176.862	1.000	-377.918	803.217
	5	458.356	169.103	.322	-106.303	1023.015
	7	432.576	178.284	.583	-162.742	1027.894
7	8	-422.519	256.078	.997	-1277.600	432.563
	9	-552.241	222.359	.526	-1294.731	190.249
	10	583.602	305.391	.960	-436.144	1603.347
	11	1283.023(*)	320.733	.004	212.047	2353.998
	1	163.226	173.586	1.000	-416.403	742.854
	2	245.920	156.994	.999	-278.306	770.145
	3	-274.901	203.075	1.000	-952.997	403.194
	4	-219.927	203.845	1.000	-900.594	460.741
	5	25.780	200.448	1.000	-643.546	695.105
	6	-432.576	178.284	.583	-1027.894	162.742
	8	-855.095	328.329	.412	-1951.433	241.244
8	9	-984.817(*)	290.170	.041	-1953.737	-15.898
	10	151.026	283.480	1.000	-795.556	1097.607
	11	850.447	316.991	.345	-208.033	1908.926
	1	1018.320(*)	248.610	.003	188.177	1848.464
	2	1101.014(*)	275.476	.004	181.160	2020.868
	3	580.193	240.641	.598	-223.342	1383.728
	4	635.168	238.412	.360	-160.926	1431.262
	5	880.874(*)	263.460	.049	1.142	1760.606
	6	422.519	256.078	.997	-432.563	1277.600
	7	855.095	328.329	.412	-241.244	1951.433
	9	-129.723	220.135	1.000	-864.785	605.340

9	10	1006.120	399.260	.491	-327.068	2339.308
	11	1705.541(*)	379.647	.001	437.843	2973.239
	1	1148.043(*)	231.710	.000	374.327	1921.758
	2	1230.737(*)	244.499	.000	414.319	2047.155
	3	709.916	229.189	.110	-55.380	1475.212
	4	764.890(*)	218.901	.029	33.946	1495.835
	5	1010.597(*)	232.406	.001	234.559	1786.634
	6	552.241	222.359	.526	-190.249	1294.731
10	7	984.817(*)	290.170	.041	15.898	1953.737
	8	129.723	220.135	1.000	-605.340	864.785
	10	1135.843(*)	325.133	.029	50.177	2221.508
	11	1835.264(*)	401.037	.000	496.143	3174.384
	1	12.200	274.124	1.000	-903.140	927.541
	2	94.894	287.019	1.000	-863.505	1053.293
	3	-425.927	300.302	1.000	-1428.678	576.825
	4	-370.952	305.108	1.000	-1389.754	647.849
11	5	-125.246	274.435	1.000	-1041.626	791.135
	6	-583.602	305.391	.960	-1603.347	436.144
	7	-151.026	283.480	1.000	-1097.607	795.556
	8	-1006.120	399.260	.491	-2339.308	327.068
	9	-1135.843(*)	325.133	.029	-2221.508	-50.177
	11	699.421	440.575	.999	-771.724	2170.566
	1	-687.221	277.324	.531	-1613.246	238.804
	2	-604.527	279.396	.825	-1537.470	328.416
	3	-1125.348(*)	284.418	.005	-2075.063	-175.633
	4	-1070.373(*)	292.800	.016	-2048.077	-92.670
	5	-824.667	286.104	.206	-1780.009	130.676
	6	-1283.023(*)	320.733	.004	-2353.998	-212.047
	7	-850.447	316.991	.345	-1908.926	208.033
	8	-1705.541(*)	379.647	.001	-2973.239	-437.843
	9	-1835.264(*)	401.037	.000	-3174.384	-496.143
	10	-699.421	440.575	.999	-2170.566	771.724

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp Relations Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	230.825	102.279	29.657	431.994
Medium	528.600	120.862	290.881	766.320
High	480.110	140.619	203.531	756.689

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-297.775	158.331	.172	-677.672	82.121
	High	-249.285	173.881	.391	-666.494	167.924
Medium	Low	297.775	158.331	.172	-82.121	677.672
	High	48.490	185.422	.991	-396.410	493.390
High	Low	249.285	173.881	.391	-167.924	666.494
	Medium	-48.490	185.422	.991	-493.390	396.410

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.



### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	6714960.656	2	3357480.328	2.071	.128	.012	.425
Error	559399976.021	345	1621449.206				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	27.620	112.209	-193.079	248.319
	2	44.582	140.206	-231.184	320.348
	3	297.570	156.068	-9.394	604.534
	4	418.538	172.036	80.166	756.911
	5	309.204	190.153	-64.802	683.209
	6	473.848	202.817	74.935	872.762
	7	306.162	235.174	-156.393	768.716
	8	295.799	360.830	-413.905	1005.503
	9	438.021	320.338	-192.040	1068.083
	10	68.356	390.515	-699.735	836.447
	11	-140.623	406.222	-939.606	658.360
Medium	1	108.480	132.596	-152.318	369.278
	2	-26.093	165.680	-351.963	299.778
	3	379.994	184.424	17.257	742.730
	4	528.681	203.294	128.829	928.533
	5	331.145	224.703	-110.815	773.105
	6	1012.990	239.667	541.597	1484.383
	7	173.508	277.903	-373.089	720.105

High	8	1879.671	426.390	1041.019	2718.322
	9	2002.639	378.541	1258.100	2747.177
	10	828.178	461.469	-79.468	1735.825
	11	-1404.589	480.029	-2348.741	-460.437
	1	250.781	154.271	-52.650	554.211
	2	120.309	192.764	-258.831	499.449
	3	1023.698	214.571	601.665	1445.731
	4	589.119	236.526	123.904	1054.334
	5	158.870	261.434	-355.336	673.076
	6	687.448	278.845	138.997	1235.898
	7	396.888	323.331	-239.060	1032.837
	8	1266.372	496.091	290.628	2242.116
	9	1390.349	440.420	524.102	2256.596
	10	-473.053	536.905	-1529.071	582.966
	11	-129.570	558.499	-1228.061	968.921

### ***General Linear Model with Level of Environment for Sales Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total Environment Level	1	Low	88
	2	Medium	174
	3	High	86

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	897074799.961	10	89707479.996	8.883	.000	.025	1.000
	Greenhouse-Geisser	897074799.961	4.466	200884754.875	8.883	.000	.025	1.000

year * envtot_lvl	Huynh-Feldt	897074799.961	4.558	196828501.353	8.883	.000	.025	1.000
	Lower-bound	897074799.961	1.000	897074799.961	8.883	.003	.025	.844
	Sphericity Assumed	656622019.419	20	32831100.971	3.251	.000	.018	1.000
	Greenhouse-Geisser	656622019.419	8.931	73519707.288	3.251	.001	.018	.983
	Huynh-Feldt	656622019.419	9.115	72035201.548	3.251	.001	.018	.985
	Lower-bound	656622019.419	2.000	328311009.710	3.251	.040	.018	.617
Error(year)	Sphericity Assumed	34841667265.813	3450	10099033.990				
	Greenhouse-Geisser	34841667265.813	1540.639	22615081.459				
	Huynh-Feldt	34841667265.813	1572.388	22158439.023				
	Lower-bound	34841667265.813	345.000	100990339.901				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	13047.827	1	13047.827	.002	.968	.000	.050
	Quadratic	329017861.080	1	329017861.080	30.034	.000	.080	1.000
	Cubic	194308483.534	1	194308483.534	13.393	.000	.037	.954
year * envtot_lvl	Linear	17430768.326	2	8715384.163	1.045	.353	.006	.232
	Quadratic	27006169.912	2	13503084.956	1.233	.293	.007	.268
	Cubic	43801243.843	2	21900621.921	1.510	.222	.009	.321
Error(year)	Linear	2877539006.351	345	8340692.772				
	Quadratic	3779454441.888	345	10954940.411				
	Cubic	5005336999.152	345	14508223.186				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	92512289.939	2	46256144.969	2.601	.076	.015	.517
Error	6134752013.508	345	17781889.894				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	122.387	79.048	-33.089	277.863
2	29.187	98.525	-164.599	222.972
3	554.730	109.713	338.940	770.519
4	607.230	117.960	375.218	839.241
5	290.958	133.720	27.949	553.967
6	705.634	143.066	424.242	987.026
7	214.451	162.938	-106.026	534.928
8	1061.696	253.310	563.469	1559.923
9	1304.189	224.398	862.829	1745.549
10	283.991	275.340	-257.565	825.547
11	-684.078	286.573	-1247.728	-120.427

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	93.201	91.704	1.000	-213.012	399.413
	3	-432.342(*)	83.107	.000	-709.848	-154.837
	4	-484.842(*)	108.103	.001	-845.815	-123.870
	5	-168.571	148.386	1.000	-664.054	326.912
	6	-583.247(*)	151.396	.008	-1088.779	-77.715
	7	-92.064	174.464	1.000	-674.627	490.498
	8	-939.309(*)	252.478	.013	-1782.370	-96.248
	9	-1181.802(*)	235.082	.000	-1966.776	-396.827
	10	-161.604	280.422	1.000	-1097.975	774.767
	11	806.465	283.307	.228	-139.538	1752.468
2	1	-93.201	91.704	1.000	-399.413	213.012
	3	-525.543(*)	106.941	.000	-882.636	-168.450
	4	-578.043(*)	132.292	.001	-1019.786	-136.301
	5	-261.771	159.487	.997	-794.323	270.780
	6	-676.448(*)	167.661	.004	-1236.291	-116.605
	7	-185.265	158.310	1.000	-713.885	343.355
	8	-1032.509(*)	279.617	.014	-1966.193	-98.826
	9	-1275.002(*)	247.544	.000	-2101.587	-448.417
	10	-254.805	293.076	1.000	-1233.427	723.817
	11	713.264	285.586	.512	-240.351	1666.879
3	1	432.342(*)	83.107	.000	154.837	709.848
	2	525.543(*)	106.941	.000	168.450	882.636
	4	-52.500	129.048	1.000	-483.411	378.411
	5	263.772	175.472	1.000	-322.155	849.698
	6	-150.905	167.110	1.000	-708.909	407.100
	7	340.278	202.281	.995	-335.169	1015.726
	8	-506.966	246.534	.897	-1330.181	316.248
	9	-749.459	235.087	.082	-1534.449	35.531

4	10	270.738	308.753	1.000	-760.234	1301.711
	11	1238.807(*)	288.853	.001	274.284	2203.330
	1	484.842(*)	108.103	.001	123.870	845.815
	2	578.043(*)	132.292	.001	136.301	1019.786
	3	52.500	129.048	1.000	-378.411	483.411
	5	316.272	170.252	.974	-252.225	884.769
	6	-98.405	179.390	1.000	-697.414	500.605
	7	392.778	200.304	.943	-276.065	1061.622
	8	-454.466	244.264	.973	-1270.100	361.168
	9	-696.959	225.274	.111	-1449.181	55.263
	10	323.238	312.236	1.000	-719.364	1365.840
5	11	1291.307(*)	295.977	.001	302.997	2279.618
	1	168.571	148.386	1.000	-326.912	664.054
	2	261.771	159.487	.997	-270.780	794.323
	3	-263.772	175.472	1.000	-849.698	322.155
	4	-316.272	170.252	.974	-884.769	252.225
	6	-414.676	172.381	.603	-990.282	160.929
	7	76.507	202.925	1.000	-601.089	754.102
	8	-770.738	267.264	.206	-1663.171	121.695
	9	-1013.231(*)	235.351	.001	-1799.101	-227.361
	10	6.967	279.883	1.000	-927.605	941.538
	11	975.035	292.642	.051	-2.141	1952.212
6	1	583.247(*)	151.396	.008	77.715	1088.779
	2	676.448(*)	167.661	.004	116.605	1236.291
	3	150.905	167.110	1.000	-407.100	708.909
	4	98.405	179.390	1.000	-500.605	697.414
	5	414.676	172.381	.603	-160.929	990.282
	7	491.183	178.723	.294	-105.600	1087.965
	8	-356.062	260.096	1.000	-1224.561	512.437
	9	-598.555	225.191	.365	-1350.502	153.392
	10	421.643	311.612	1.000	-618.874	1462.160
	11	1389.712(*)	328.721	.002	292.065	2487.359
	1	92.064	174.464	1.000	-490.498	674.627
7						

8	2	185.265	158.310	1.000	-343.355	713.885
	3	-340.278	202.281	.995	-1015.726	335.169
	4	-392.778	200.304	.943	-1061.622	276.065
	5	-76.507	202.925	1.000	-754.102	601.089
	6	-491.183	178.723	.294	-1087.965	105.600
	8	-847.245	329.755	.444	-1948.344	253.855
	9	-1089.737(*)	289.640	.011	-2056.888	-122.587
	10	-69.540	286.750	1.000	-1027.040	887.960
	11	898.529	323.759	.274	-182.549	1979.607
	1	939.309(*)	252.478	.013	96.248	1782.370
	2	1032.509(*)	279.617	.014	98.826	1966.193
9	3	506.966	246.534	.897	-316.248	1330.181
	4	454.466	244.264	.973	-361.168	1270.100
	5	770.738	267.264	.206	-121.695	1663.171
	6	356.062	260.096	1.000	-512.437	1224.561
	7	847.245	329.755	.444	-253.855	1948.344
	9	-242.493	223.543	1.000	-988.936	503.950
	10	777.705	407.174	.960	-581.909	2137.318
	11	1745.774(*)	388.739	.001	447.718	3043.829
	1	1181.802(*)	235.082	.000	396.827	1966.776
	2	1275.002(*)	247.544	.000	448.417	2101.587
	3	749.459	235.087	.082	-35.531	1534.449
10	4	696.959	225.274	.111	-55.263	1449.181
	5	1013.231(*)	235.351	.001	227.361	1799.101
	6	598.555	225.191	.365	-153.392	1350.502
	7	1089.737(*)	289.640	.011	122.587	2056.888
	8	242.493	223.543	1.000	-503.950	988.936
	10	1020.198	332.190	.119	-89.033	2129.428
	11	1988.266(*)	409.233	.000	621.777	3354.756
	1	161.604	280.422	1.000	-774.767	1097.975
	2	254.805	293.076	1.000	-723.817	1233.427
	3	-270.738	308.753	1.000	-1301.711	760.234
	4	-323.238	312.236	1.000	-1365.840	719.364

11	5	-6.967	279.883	1.000	-941.538	927.605
	6	-421.643	311.612	1.000	-1462.160	618.874
	7	69.540	286.750	1.000	-887.960	1027.040
	8	-777.705	407.174	.960	-2137.318	581.909
	9	-1020.198	332.190	.119	-2129.428	89.033
	11	968.069	450.689	.837	-536.849	2472.987
	1	-806.465	283.307	.228	-1752.468	139.538
	2	-713.264	285.586	.512	-1666.879	240.351
	3	-1238.807(*)	288.853	.001	-2203.330	-274.284
	4	-1291.307(*)	295.977	.001	-2279.618	-302.997
	5	-975.035	292.642	.051	-1952.212	2.141
	6	-1389.712(*)	328.721	.002	-2487.359	-292.065
	7	-898.529	323.759	.274	-1979.607	182.549
	8	-1745.774(*)	388.739	.001	-3043.829	-447.718
	9	-1988.266(*)	409.233	.000	-3354.756	-621.777
	10	-968.069	450.689	.837	-2472.987	536.849

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	650.016	135.535	383.437	916.594
Medium	309.112	96.387	119.532	498.692
High	265.520	137.102	-4.140	535.181

### Pairwise Comparisons



Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	340.904	166.313	.118	-58.146	739.954
	High	384.495	192.787	.134	-78.074	847.065
Medium	Low	-340.904	166.313	.118	-739.954	58.146
	High	43.591	167.593	.991	-358.529	445.711
High	Low	-384.495	192.787	.134	-847.065	78.074
	Medium	-43.591	167.593	.991	-445.711	358.529

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	8410208.176	2	4205104.088	2.601	.076	.015	.517
Error	557704728.501	345	1616535.445				

The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

Total Environment Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	143.167	149.120	-150.131	436.466
	2	-124.780	185.864	-490.349	240.788
	3	1019.335	206.968	612.258	1426.412
	4	1308.056	222.527	870.376	1745.735

Medium	5	178.237	252.257	-317.918	674.392
	6	923.061	269.888	392.228	1453.895
	7	-585.090	307.375	-1189.655	19.476
	8	2190.872	477.858	1250.990	3130.755
	9	2499.728	423.317	1667.122	3332.335
	10	776.748	519.416	-244.873	1798.369
	11	-1179.163	540.608	-2242.465	-115.861
	1	57.093	106.048	-151.489	265.674
	2	74.985	132.179	-184.992	334.963
	3	307.806	147.187	18.309	597.303
	4	142.993	158.252	-168.266	454.253
High	5	253.266	179.395	-99.579	606.111
	6	663.174	191.934	285.667	1040.681
	7	512.512	218.593	82.570	942.454
	8	909.494	339.833	241.088	1577.900
	9	712.667	301.046	120.551	1304.783
	10	-126.030	369.388	-852.565	600.505
	11	-107.731	384.458	-863.907	648.446
	1	166.902	150.844	-129.787	463.591
	2	137.355	188.012	-232.440	507.150
	3	337.048	209.361	-74.736	748.832
	4	370.640	225.099	-72.100	813.380
	5	441.371	255.173	-60.520	943.262
	6	530.667	273.009	-6.304	1067.638
	7	715.932	310.929	104.377	1327.487
	8	84.722	483.383	-866.027	1035.470
	9	700.171	428.211	-142.061	1542.403
	10	201.256	525.421	-832.177	1234.688
	11	-765.339	546.858	-1840.933	310.256

## General Linear Model with Level of Product for Sales Annual Growth

### Between-Subjects Factors

		Value Label	N
Total Product Level	1	Low	86
	2	Medium	174
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	787467891.337	10	78746789.134	7.720	.000	.022	1.000
	Greenhouse-Geisser	787467891.337	4.456	176701882.529	7.720	.000	.022	.999
	Huynh-Feldt	787467891.337	4.548	173139033.849	7.720	.000	.022	.999
	Lower-bound	787467891.337	1.000	787467891.337	7.720	.006	.022	.791
year * protot_lvl	Sphericity Assumed	305281184.544	20	15264059.227	1.496	.072	.009	.942
	Greenhouse-Geisser	305281184.544	8.913	34251402.884	1.496	.145	.009	.717
	Huynh-Feldt	305281184.544	9.096	33560790.177	1.496	.143	.009	.724
	Lower-bound	305281184.544	2.000	152640592.272	1.496	.225	.009	.318
Error(year)	Sphericity Assumed	35193008100.689	3450	10200871.913				
	Greenhouse-Geisser	35193008100.689	1537.485	22889990.695				
	Huynh-Feldt	35193008100.689	1569.123	22428458.695				
	Lower-bound	35193008100.689	345.000	102008719.132				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	1767339.201	1	1767339.201	.212	.646	.001	.074
	Quadratic	310771250.377	1	310771250.377	28.340	.000	.076	1.000
	Cubic	145213642.395	1	145213642.395	9.973	.002	.028	.883
year * protot_lvl	Linear	18197113.534	2	9098556.767	1.091	.337	.006	.241
	Quadratic	23271754.435	2	11635877.217	1.061	.347	.006	.235
	Cubic	25773539.301	2	12886769.651	.885	.414	.005	.202
Error(year)	Linear	2876772661.143	345	8338471.482				
	Quadratic	3783188857.365	345	10965764.804				
	Cubic	5023364703.694	345	14560477.402				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_lvl	42089232.480	2	21044616.240	1.174	.310	.007	.257
Error	6185175070.966	345	17928043.684				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	88.149	78.264	-65.786	242.084
2	18.534	98.084	-174.383	211.451
3	567.829	110.027	351.420	784.238
4	573.570	120.272	337.011	810.129
5	282.516	133.820	19.310	545.723
6	714.919	143.188	433.288	996.551
7	303.428	163.927	-18.993	625.850
8	1116.121	255.964	612.675	1619.567
9	1273.446	227.406	826.171	1720.722
10	75.072	275.489	-466.777	616.921
11	-444.076	286.802	-1008.177	120.026

#### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	69.615	91.947	1.000	-237.410	376.639
	3	-479.680(*)	83.220	.000	-757.564	-201.796
	4	-485.421(*)	109.662	.001	-851.601	-119.242
	5	-194.367	147.872	1.000	-688.134	299.400

2	6	-626.770(*)	150.699	.002	-1129.976	-123.565
	7	-215.279	176.542	1.000	-804.778	374.219
	8	-1027.972(*)	254.022	.004	-1876.189	-179.756
	9	-1185.297(*)	236.519	.000	-1975.069	-395.526
	10	13.077	280.214	1.000	-922.600	948.754
	11	532.224	284.010	.970	-416.127	1480.576
	1	-69.615	91.947	1.000	-376.639	237.410
	3	-549.295(*)	108.145	.000	-910.408	-188.182
	4	-555.036(*)	134.998	.003	-1005.816	-104.257
	5	-263.982	159.019	.997	-794.972	267.007
	6	-696.385(*)	167.428	.002	-1255.454	-137.317
3	7	-284.894	159.423	.986	-817.230	247.441
	8	-1097.587(*)	281.925	.007	-2038.975	-156.200
	9	-1254.912(*)	250.162	.000	-2090.240	-419.584
	10	-56.538	293.462	1.000	-1036.450	923.374
	11	462.610	285.720	.998	-491.450	1416.669
	1	479.680(*)	83.220	.000	201.796	757.564
	2	549.295(*)	108.145	.000	188.182	910.408
	4	-5.741	129.387	1.000	-437.784	426.302
	5	285.313	175.991	.998	-302.349	872.974
	6	-147.090	166.656	1.000	-703.579	409.398
	7	264.401	206.820	1.000	-426.203	955.004
4	8	-548.292	246.935	.779	-1372.843	276.258
	9	-705.617	235.308	.148	-1491.345	80.111
	10	492.757	307.009	.998	-532.392	1517.906
	11	1011.905(*)	291.693	.032	37.897	1985.912
	1	485.421(*)	109.662	.001	119.242	851.601
	2	555.036(*)	134.998	.003	104.257	1005.816
	3	5.741	129.387	1.000	-426.302	437.784
	5	291.054	172.318	.995	-284.341	866.449
	6	-141.349	180.130	1.000	-742.829	460.131
	7	270.142	206.770	1.000	-420.295	960.579
	8	-542.551	244.901	.783	-1360.313	275.211

5	9	-699.876	225.128	.106	-1451.611	51.859
	10	498.498	310.574	.998	-538.554	1535.551
	11	1017.646(*)	300.257	.042	15.044	2020.248
	1	194.367	147.872	1.000	-299.400	688.134
	2	263.982	159.019	.997	-267.007	794.972
	3	-285.313	175.991	.998	-872.974	302.349
	4	-291.054	172.318	.995	-866.449	284.341
	6	-432.403	172.837	.508	-1009.532	144.726
	7	-20.912	203.007	1.000	-698.783	656.959
	8	-833.605	270.742	.116	-1737.653	70.443
	9	-990.930(*)	239.049	.002	-1789.148	-192.712
6	10	207.444	280.208	1.000	-728.212	1143.101
	11	726.592	292.808	.528	-251.137	1704.321
	1	626.770(*)	150.699	.002	123.565	1129.976
	2	696.385(*)	167.428	.002	137.317	1255.454
	3	147.090	166.656	1.000	-409.398	703.579
	4	141.349	180.130	1.000	-460.131	742.829
	5	432.403	172.837	.508	-144.726	1009.532
	7	411.491	180.482	.725	-191.166	1014.148
	8	-401.202	261.890	.999	-1275.691	473.287
	9	-558.527	227.376	.553	-1317.770	200.716
	10	639.847	311.280	.898	-399.562	1679.257
7	11	1158.995(*)	329.247	.027	59.592	2258.398
	1	215.279	176.542	1.000	-374.219	804.778
	2	284.894	159.423	.986	-247.441	817.230
	3	-264.401	206.820	1.000	-955.004	426.203
	4	-270.142	206.770	1.000	-960.579	420.295
	5	20.912	203.007	1.000	-656.959	698.783
	6	-411.491	180.482	.725	-1014.148	191.166
	8	-812.693	334.885	.582	-1930.922	305.537
	9	-970.018	295.879	.061	-1958.001	17.965
	10	228.356	288.730	1.000	-735.756	1192.469
	11	747.504	324.120	.701	-334.781	1829.789

8	1	1027.972(*)	254.022	.004	179.756	1876.189
	2	1097.587(*)	281.925	.007	156.200	2038.975
	3	548.292	246.935	.779	-276.258	1372.843
	4	542.551	244.901	.783	-275.211	1360.313
	5	833.605	270.742	.116	-70.443	1737.653
	6	401.202	261.890	.999	-473.287	1275.691
	7	812.693	334.885	.582	-305.537	1930.922
	9	-157.325	224.359	1.000	-906.494	591.844
	10	1041.049	406.960	.454	-317.850	2399.949
	11	1560.197(*)	391.905	.005	251.568	2868.826
9	1	1185.297(*)	236.519	.000	395.526	1975.069
	2	1254.912(*)	250.162	.000	419.584	2090.240
	3	705.617	235.308	.148	-80.111	1491.345
	4	699.876	225.128	.106	-51.859	1451.611
	5	990.930(*)	239.049	.002	192.712	1789.148
	6	558.527	227.376	.553	-200.716	1317.770
	7	970.018	295.879	.061	-17.965	1958.001
	8	157.325	224.359	1.000	-591.844	906.494
	10	1198.374(*)	330.910	.018	93.418	2303.331
	11	1717.522(*)	413.456	.002	336.933	3098.111
10	1	-13.077	280.214	1.000	-948.754	922.600
	2	56.538	293.462	1.000	-923.374	1036.450
	3	-492.757	307.009	.998	-1517.906	532.392
	4	-498.498	310.574	.998	-1535.551	538.554
	5	-207.444	280.208	1.000	-1143.101	728.212
	6	-639.847	311.280	.898	-1679.257	399.562
	7	-228.356	288.730	1.000	-1192.469	735.756
	8	-1041.049	406.960	.454	-2399.949	317.850
	9	-1198.374(*)	330.910	.018	-2303.331	-93.418
	11	519.147	451.256	1.000	-987.661	2025.956
11	1	-532.224	284.010	.970	-1480.576	416.127
	2	-462.610	285.720	.998	-1416.669	491.450
	3	-1011.905(*)	291.693	.032	-1985.912	-37.897



4	-1017.646(*)	300.257	.042	-2020.248	-15.044
5	-726.592	292.808	.528	-1704.321	251.137
6	-1158.995(*)	329.247	.027	-2258.398	-59.592
7	-747.504	324.120	.701	-1829.789	334.781
8	-1560.197(*)	391.905	.005	-2868.826	-251.568
9	-1717.522(*)	413.456	.002	-3098.111	-336.933
10	-519.147	451.256	1.000	-2025.956	987.661

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	412.462	137.664	141.695	683.229
Medium	290.445	96.782	100.087	480.802
High	543.323	136.091	275.651	810.995

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Product Level	(J) Total Product Level				Upper Bound	Lower Bound
Low	Medium	122.017	168.280	.850	-281.752	525.786
	High	-130.861	193.577	.875	-595.328	333.605
Medium	Low	-122.017	168.280	.850	-525.786	281.752
	High	-252.878	166.996	.343	-653.565	147.808
High	Low	130.861	193.577	.875	-333.605	595.328

Medium	252.878	166.996	.343	-147.808	653.565
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Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	3826293.862	2	1913146.931	1.174	.310	.007	.257
Error	562288642.816	345	1629822.153				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Product Level \* year

Measure: MEASURE\_1

		95% Confidence Interval			
Total Product Level	year	Mean	Std. Error	Lower Bound	Upper Bound
Low	1	-221.832	149.349	-515.581	71.917
	2	-279.714	187.169	-647.851	88.422
	3	507.088	209.961	94.122	920.053
	4	646.883	229.511	195.466	1098.301
	5	331.306	255.365	-170.962	833.574
	6	866.343	273.241	328.916	1403.771
	7	-216.425	312.816	-831.691	398.842
	8	1701.227	488.447	740.519	2661.935
	9	1886.513	433.950	1032.993	2740.034
	10	-43.340	525.706	-1077.332	990.653
	11	-640.967	547.295	-1717.422	435.487
Medium	1	153.156	104.997	-53.359	359.671
	2	97.987	131.586	-160.825	356.798

High	3	271.549	147.609	-18.779	561.876
	4	252.744	161.354	-64.616	570.105
	5	276.620	179.530	-76.490	629.730
	6	642.478	192.097	264.649	1020.306
	7	217.690	219.919	-214.861	650.241
	8	780.014	343.393	104.606	1455.422
	9	834.629	305.080	234.577	1434.680
	10	509.616	369.588	-217.313	1236.544
	11	-841.589	384.765	-1598.370	-84.807
	1	333.123	147.642	42.731	623.515
	2	237.329	185.030	-126.600	601.259
	3	924.851	207.562	516.605	1333.097
	4	821.084	226.888	374.826	1267.342
	5	239.623	252.446	-256.904	736.151
	6	635.937	270.118	104.652	1167.223
	7	909.020	309.241	300.785	1517.254
	8	867.122	482.864	-82.606	1816.851
	9	1099.197	428.990	255.431	1942.963
	10	-241.060	519.698	-1263.235	781.114
	11	150.330	541.040	-913.822	1214.481

### ***General Linear Model with Level of Corporate Governance for Sales Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total Corp Gov Level	1	Low	94
	2	Medium	216
	3	High	38

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	435316066.619	10	43531606.662	4.277	.000	.012	.999
	Greenhouse-Geisser	435316066.619	4.467	97457030.977	4.277	.001	.012	.949
	Huynh-Feldt	435316066.619	4.559	95488836.294	4.277	.001	.012	.952
	Lower-bound	435316066.619	1.000	435316066.619	4.277	.039	.012	.541
year * cgovtot_lvl	Sphericity Assumed	380438330.073	20	19021916.504	1.869	.011	.011	.983
	Greenhouse-Geisser	380438330.073	8.933	42585598.099	1.869	.053	.011	.829
	Huynh-Feldt	380438330.073	9.118	41725560.123	1.869	.052	.011	.835
	Lower-bound	380438330.073	2.000	190219165.036	1.869	.156	.011	.388
Error(year)	Sphericity Assumed	35117850955.159	3450	10179087.233				
	Greenhouse-Geisser	35117850955.159	1541.028	22788582.731				
	Huynh-Feldt	35117850955.159	1572.792	22328355.625				
	Lower-bound	35117850955.159	345.000	101790872.334				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	10946.481	1	10946.481	.001	.971	.000	.050
	Quadratic	159609347.109	1	159609347.109	14.689	.000	.041	.969
	Cubic	84666859.114	1	84666859.114	5.804	.017	.017	.671
year * cgovtot_lvl	Linear	597108.603	2	298554.302	.036	.965	.000	.055
	Quadratic	57810315.698	2	28905157.849	2.660	.071	.015	.527
	Cubic	16685911.937	2	8342955.968	.572	.565	.003	.145
Error(year)	Linear	2894372666.074	345	8389485.989				
	Quadratic	3748650296.102	345	10865653.032				
	Cubic	5032452331.059	345	14586818.351				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	125351621.616	2	62675810.808	3.544	.030	.020	.657
Error	6101912681.830	345	17686703.426				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	111.952	95.010	-74.920	298.824
2	11.232	118.539	-221.918	244.382
3	454.917	132.316	194.670	715.164
4	510.812	142.548	230.440	791.184
5	248.983	160.779	-67.248	565.214
6	617.861	171.050	281.429	954.292
7	166.326	198.358	-223.818	556.469
8	961.213	305.729	359.886	1562.541
9	1103.967	271.275	570.406	1637.527
10	55.927	331.463	-596.015	707.869

11	-461.945	346.047	-1142.572	218.682
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### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	100.720	110.030	1.000	-266.684	468.125
	3	-342.965(*)	100.917	.041	-679.941	-5.989
	4	-398.860	131.347	.132	-837.448	39.728
	5	-137.030	178.543	1.000	-733.210	459.150
	6	-505.908	181.618	.267	-1112.359	100.542
	7	-54.374	211.842	1.000	-761.744	652.997
	8	-849.261	305.443	.271	-1869.182	170.659
	9	-992.014(*)	284.569	.030	-1942.233	-41.796
	10	56.025	337.069	1.000	-1069.499	1181.549
	11	573.897	342.349	.996	-569.257	1717.052
	12	573.897	342.349	.996	-569.257	1717.052
2	1	-100.720	110.030	1.000	-468.125	266.684
	3	-443.685(*)	129.302	.036	-875.445	-11.926
	4	-499.580	159.873	.101	-1033.419	34.259
	5	-237.751	191.417	1.000	-876.919	401.417
	6	-606.629	200.627	.137	-1276.553	63.296
	7	-155.094	192.199	1.000	-796.873	486.685
	8	-949.981	337.571	.248	-2077.181	177.218
	9	-1092.735(*)	299.320	.016	-2092.207	-93.262
	10	-44.695	353.566	1.000	-1225.305	1135.914
	11	473.177	344.484	1.000	-677.107	1623.461
	12	473.177	344.484	1.000	-677.107	1623.461
3	1	342.965(*)	100.917	.041	5.989	679.941
	2	443.685(*)	129.302	.036	11.926	875.445
	4	-55.895	155.231	1.000	-574.234	462.445

4	5	205.935	212.323	1.000	-503.043	914.912
	6	-162.943	201.376	1.000	-835.366	509.480
	7	288.592	247.453	1.000	-537.690	1114.873
	8	-506.296	297.394	.994	-1499.338	486.746
	9	-649.049	283.313	.715	-1595.073	296.974
	10	398.990	369.600	1.000	-835.157	1633.138
	11	916.862	350.232	.400	-252.615	2086.339
	1	398.860	131.347	.132	-39.728	837.448
	2	499.580	159.873	.101	-34.259	1033.419
	3	55.895	155.231	1.000	-462.445	574.234
	5	261.829	206.772	1.000	-428.613	952.271
5	6	-107.049	216.893	1.000	-831.287	617.189
	7	344.486	245.935	1.000	-476.728	1165.701
	8	-450.401	295.136	.999	-1435.905	535.103
	9	-593.155	271.338	.807	-1499.191	312.882
	10	454.885	372.342	1.000	-788.421	1698.191
	11	972.757	359.956	.329	-229.190	2174.704
	1	137.030	178.543	1.000	-459.150	733.210
	2	237.751	191.417	1.000	-401.417	876.919
	3	-205.935	212.323	1.000	-914.912	503.043
	4	-261.829	206.772	1.000	-952.271	428.613
	6	-368.878	207.547	.987	-1061.907	324.151
6	7	82.657	244.945	1.000	-735.249	900.563
	8	-712.231	324.489	.800	-1795.746	371.284
	9	-854.984	286.388	.154	-1811.277	101.309
	10	193.056	336.702	1.000	-931.241	1317.352
	11	710.928	353.144	.920	-468.271	1890.127
	1	505.908	181.618	.267	-100.542	1112.359
	2	606.629	200.627	.137	-63.296	1276.553
	3	162.943	201.376	1.000	-509.480	835.366
	4	107.049	216.893	1.000	-617.189	831.287
	5	368.878	207.547	.987	-324.151	1061.907
	7	451.535	216.903	.882	-272.735	1175.805

7	8	-343.353	314.696	1.000	-1394.170	707.464
	9	-486.106	273.295	.987	-1398.678	426.466
	10	561.934	373.312	1.000	-684.611	1808.478
	11	1079.806	396.256	.311	-243.351	2402.962
	1	54.374	211.842	1.000	-652.997	761.744
	2	155.094	192.199	1.000	-486.685	796.873
	3	-288.592	247.453	1.000	-1114.873	537.690
	4	-344.486	245.935	1.000	-1165.701	476.728
	5	-82.657	244.945	1.000	-900.563	735.249
	6	-451.535	216.903	.882	-1175.805	272.735
	8	-794.888	401.554	.935	-2135.734	545.959
8	9	-937.641	354.379	.375	-2120.964	245.683
	10	110.399	349.779	1.000	-1057.564	1278.362
	11	628.271	389.759	.998	-673.193	1929.734
	1	849.261	305.443	.271	-170.659	1869.182
	2	949.981	337.571	.248	-177.218	2077.181
	3	506.296	297.394	.994	-486.746	1499.338
	4	450.401	295.136	.999	-535.103	1435.905
	5	712.231	324.489	.800	-371.284	1795.746
	6	343.353	314.696	1.000	-707.464	1394.170
	7	794.888	401.554	.935	-545.959	2135.734
	9	-142.753	269.932	1.000	-1044.095	758.588
9	10	905.286	487.245	.974	-721.696	2532.268
	11	1423.158	470.478	.137	-147.836	2994.153
	1	992.014(*)	284.569	.030	41.796	1942.233
	2	1092.735(*)	299.320	.016	93.262	2092.207
	3	649.049	283.313	.715	-296.974	1595.073
	4	593.155	271.338	.807	-312.882	1499.191
	5	854.984	286.388	.154	-101.309	1811.277
	6	486.106	273.295	.987	-426.466	1398.678
	7	937.641	354.379	.375	-245.683	2120.964
	8	142.753	269.932	1.000	-758.588	1044.095
	10	1048.040	395.596	.373	-272.914	2368.993



10	11	1565.912	496.292	.092	-91.279	3223.102
	1	-56.025	337.069	1.000	-1181.549	1069.499
	2	44.695	353.566	1.000	-1135.914	1225.305
	3	-398.990	369.600	1.000	-1633.138	835.157
	4	-454.885	372.342	1.000	-1698.191	788.421
	5	-193.056	336.702	1.000	-1317.352	931.241
	6	-561.934	373.312	1.000	-1808.478	684.611
	7	-110.399	349.779	1.000	-1278.362	1057.564
	8	-905.286	487.245	.974	-2532.268	721.696
	9	-1048.040	395.596	.373	-2368.993	272.914
11	11	517.872	544.501	1.000	-1300.297	2336.041
	1	-573.897	342.349	.996	-1717.052	569.257
	2	-473.177	344.484	1.000	-1623.461	677.107
	3	-916.862	350.232	.400	-2086.339	252.615
	4	-972.757	359.956	.329	-2174.704	229.190
	5	-710.928	353.144	.920	-1890.127	468.271
	6	-1079.806	396.256	.311	-2402.962	243.351
	7	-628.271	389.759	.998	-1929.734	673.193
	8	-1423.158	470.478	.137	-2994.153	147.836
	9	-1565.912	496.292	.092	-3223.102	91.279
	10	-517.872	544.501	1.000	-2336.041	1300.297

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Corp Gov Level

### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	648.807	130.787	391.568	906.046

Medium	327.533	86.278	157.836	497.231
High	54.908	205.700	-349.677	459.493

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Corp Gov Level	(J) Total Corp Gov Level				Upper Bound	Lower Bound
Low	Medium	321.273	156.681	.118	-54.666	697.212
	High	593.899(*)	243.758	.045	9.030	1178.768
Medium	Low	-321.273	156.681	.118	-697.212	54.666
	High	272.626	223.062	.530	-262.586	807.837
High	Low	-593.899(*)	243.758	.045	-1178.768	-9.030
	Medium	-272.626	223.062	.530	-807.837	262.586

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	11395601.965	2	5697800.983	3.544	.030	.020	.657
Error	554719334.712	345	1607882.130				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Corp Gov Level \* year

Measure: MEASURE\_1

Total Corp Gov Level	year	Mean	Std. Error	95% Confidence Interval
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				Lower Bound	Upper Bound
Low	1	228.162	144.167	-55.395	511.718
	2	-109.170	179.869	-462.948	244.608
	3	910.567	200.774	515.672	1305.462
	4	1209.575	216.300	784.142	1635.008
	5	450.845	243.964	-28.999	930.689
	6	1143.058	259.549	632.561	1653.554
	7	-84.676	300.986	-676.674	507.321
	8	2059.618	463.908	1147.173	2972.063
	9	2216.627	411.628	1407.011	3026.243
	10	-304.852	502.956	-1294.098	684.395
	11	-582.876	525.086	-1615.649	449.897
Medium	1	63.746	95.105	-123.312	250.804
	2	105.126	118.657	-128.256	338.508
	3	389.851	132.448	129.345	650.358
	4	257.843	142.690	-22.809	538.495
	5	247.639	160.940	-68.907	564.185
	6	605.684	171.220	268.917	942.451
	7	477.753	198.556	87.221	868.285
	8	749.539	306.034	147.612	1351.465
	9	866.357	271.545	332.265	1400.449
	10	418.138	331.793	-234.453	1070.730
	11	-578.808	346.392	-1260.114	102.498
High	1	43.949	226.745	-402.028	489.925
	2	37.740	282.897	-518.680	594.160
	3	64.333	315.776	-556.755	685.422
	4	65.018	340.196	-604.100	734.136
	5	48.464	383.705	-706.232	803.161
	6	104.840	408.217	-698.066	907.747
	7	105.901	473.389	-825.190	1036.991
	8	74.483	729.633	-1360.605	1509.572
	9	228.916	647.406	-1044.444	1502.276

10	54.494	791.047	-1501.387	1610.376
11	-224.151	825.853	-1848.492	1400.190

### ***General Linear Model with Total CSR for Sales Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total CSR Level 1	Low	87
2	Medium	173
3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	719271276.181	10	71927127.618	7.053	.000	.020	1.000
	Greenhouse-Geisser	719271276.181	4.436	162162185.706	7.053	.000	.020	.997
	Huynh-Feldt	719271276.181	4.526	158903256.796	7.053	.000	.020	.998
	Lower-bound	719271276.181	1.000	719271276.181	7.053	.008	.020	.754
year * CSRtot_level	Sphericity Assumed	315669080.301	20	15783454.015	1.548	.057	.009	.951
	Greenhouse-Geisser	315669080.301	8.871	35584340.510	1.548	.127	.009	.733
	Huynh-Feldt	315669080.301	9.053	34869211.792	1.548	.125	.009	.740
	Lower-bound	315669080.301	2.000	157834540.151	1.548	.214	.009	.328
Error(year)	Sphericity Assumed	35182620204.931	3450	10197860.929				
	Greenhouse-Geisser	35182620204.931	1530.249	22991428.582				
	Huynh-Feldt	35182620204.931	1561.633	22529376.157				
	Lower-bound	35182620204.931	345.000	101978609.290				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	5008581.854	1	5008581.854	.606	.437	.002	.121
	Quadratic	272201051.194	1	272201051.194	24.688	.000	.067	.999
	Cubic	134248470.455	1	134248470.455	9.205	.003	.026	.857
year * CSRtot_level	Linear	43290253.763	2	21645126.882	2.619	.074	.015	.520
	Quadratic	2664517.106	2	1332258.553	.121	.886	.001	.068
	Cubic	17300599.861	2	8650299.930	.593	.553	.003	.149
Error(year)	Linear	2851679520.914	345	8265737.742				
	Quadratic	3803796094.694	345	11025495.927				
	Cubic	5031837643.134	345	14585036.647				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRtot_level	19565011.764	2	9782505.882	.544	.581	.003	.140
Error	6207699291.682	345	17993331.280				

a. Computed using alpha = .05

### Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	74.394	78.412	-79.831	228.619
2	16.221	98.244	-177.012	209.453
3	539.943	110.454	322.695	757.191
4	538.987	120.140	302.689	775.285
5	302.354	133.473	39.831	564.876
6	685.468	142.941	404.322	966.614
7	223.313	162.763	-96.820	543.446
8	1140.299	255.437	637.888	1642.709
9	1184.875	227.829	736.767	1632.983
10	199.253	274.689	-341.023	739.528
11	-418.897	286.309	-982.028	144.234

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	58.173	91.769	1.000	-248.257	364.603
	3	-465.549(*)	83.460	.000	-744.233	-186.866
	4	-464.593(*)	108.596	.001	-827.213	-101.974
	5	-227.960	147.439	.999	-720.281	264.361
	6	-611.074(*)	151.301	.004	-1116.290	-105.858
	7	-148.919	175.637	1.000	-735.396	437.558
	8	-1065.905(*)	253.688	.002	-1913.007	-218.803

2	9	-1110.482(*)	237.393	.000	-1903.172	-317.791
	10	-124.859	278.801	1.000	-1055.815	806.097
	11	493.291	282.981	.991	-451.625	1438.206
	1	-58.173	91.769	1.000	-364.603	248.257
	3	-523.722(*)	108.498	.000	-886.014	-161.430
	4	-522.766(*)	134.414	.007	-971.593	-73.939
	5	-286.133	158.710	.984	-816.090	243.825
	6	-669.247(*)	167.907	.005	-1229.912	-108.582
	7	-207.092	158.331	1.000	-735.783	321.599
	8	-1124.078(*)	281.713	.004	-2064.758	-183.398
	9	-1168.655(*)	251.088	.000	-2007.075	-330.234
3	10	-183.032	292.182	1.000	-1158.672	792.608
	11	435.118	284.859	.999	-516.068	1386.303
	1	465.549(*)	83.460	.000	186.866	744.233
	2	523.722(*)	108.498	.000	161.430	886.014
	4	.956	128.175	1.000	-427.038	428.950
	5	237.590	176.074	1.000	-350.349	825.528
	6	-145.525	166.868	1.000	-702.723	411.673
	7	316.630	205.277	.999	-368.821	1002.082
	8	-600.356	246.852	.577	-1424.630	223.918
	9	-644.932	235.330	.300	-1430.734	140.869
	10	340.691	306.920	1.000	-684.161	1365.542
4	11	958.840	290.982	.058	-12.792	1930.472
	1	464.593(*)	108.596	.001	101.974	827.213
	2	522.766(*)	134.414	.007	73.939	971.593
	3	-.956	128.175	1.000	-428.950	427.038
	5	236.634	172.453	1.000	-339.212	812.479
	6	-146.481	179.337	1.000	-745.313	452.352
	7	315.674	203.304	.999	-363.188	994.537
	8	-601.312	245.040	.555	-1419.538	216.914
	9	-645.888	225.555	.217	-1399.049	107.272
	10	339.735	311.512	1.000	-700.450	1379.919
	11	957.884	299.017	.078	-40.576	1956.344

5	1	227.960	147.439	.999	-264.361	720.281
	2	286.133	158.710	.984	-243.825	816.090
	3	-237.590	176.074	1.000	-825.528	350.349
	4	-236.634	172.453	1.000	-812.479	339.212
	6	-383.114	172.224	.775	-958.197	191.968
	7	79.041	201.290	1.000	-593.096	751.177
	8	-837.945	270.481	.110	-1741.119	65.229
	9	-882.522(*)	239.536	.015	-1682.369	-82.675
	10	103.101	279.743	1.000	-831.001	1037.204
	11	721.250	292.464	.543	-255.330	1697.831
6	1	611.074(*)	151.301	.004	105.858	1116.290
	2	669.247(*)	167.907	.005	108.582	1229.912
	3	145.525	166.868	1.000	-411.673	702.723
	4	146.481	179.337	1.000	-452.352	745.313
	5	383.114	172.224	.775	-191.968	958.197
	7	462.155	180.744	.455	-141.376	1065.686
	8	-454.831	260.519	.991	-1324.741	415.079
	9	-499.408	226.882	.795	-1257.000	258.184
	10	486.215	310.184	.999	-549.534	1521.964
	11	1104.365(*)	328.773	.047	6.544	2202.185
7	1	148.919	175.637	1.000	-437.558	735.396
	2	207.092	158.331	1.000	-321.599	735.783
	3	-316.630	205.277	.999	-1002.082	368.821
	4	-315.674	203.304	.999	-994.537	363.188
	5	-79.041	201.290	1.000	-751.177	593.096
	6	-462.155	180.744	.455	-1065.686	141.376
	8	-916.986	333.184	.291	-2029.537	195.565
	9	-961.563	295.058	.065	-1946.805	23.680
	10	24.060	285.771	1.000	-930.172	978.293
	11	642.209	321.877	.928	-432.586	1717.005
8	1	1065.905(*)	253.688	.002	218.803	1913.007
	2	1124.078(*)	281.713	.004	183.398	2064.758
	3	600.356	246.852	.577	-223.918	1424.630



9	4	601.312	245.040	.555	-216.914	1419.538
	5	837.945	270.481	.110	-65.229	1741.119
	6	454.831	260.519	.991	-415.079	1324.741
	7	916.986	333.184	.291	-195.565	2029.537
	9	-44.577	223.496	1.000	-790.863	701.710
	10	941.046	407.294	.697	-418.967	2301.059
	11	1559.196(*)	391.970	.005	250.350	2868.041
	1	1110.482(*)	237.393	.000	317.791	1903.172
	2	1168.655(*)	251.088	.000	330.234	2007.075
	3	644.932	235.330	.300	-140.869	1430.734
	4	645.888	225.555	.217	-107.272	1399.049
10	5	882.522(*)	239.536	.015	82.675	1682.369
	6	499.408	226.882	.795	-258.184	1257.000
	7	961.563	295.058	.065	-23.680	1946.805
	8	44.577	223.496	1.000	-701.710	790.863
	10	985.623	332.492	.164	-124.616	2095.862
	11	1603.772(*)	412.915	.007	224.988	2982.556
	1	124.859	278.801	1.000	-806.097	1055.815
	2	183.032	292.182	1.000	-792.608	1158.672
	3	-340.691	306.920	1.000	-1365.542	684.161
	4	-339.735	311.512	1.000	-1379.919	700.450
	5	-103.101	279.743	1.000	-1037.204	831.001
11	6	-486.215	310.184	.999	-1521.964	549.534
	7	-24.060	285.771	1.000	-978.293	930.172
	8	-941.046	407.294	.697	-2301.059	418.967
	9	-985.623	332.492	.164	-2095.862	124.616
	11	618.149	450.766	1.000	-887.026	2123.324
	1	-493.291	282.981	.991	-1438.206	451.625
	2	-435.118	284.859	.999	-1386.303	516.068
	3	-958.840	290.982	.058	-1930.472	12.792
	4	-957.884	299.017	.078	-1956.344	40.576
	5	-721.250	292.464	.543	-1697.831	255.330
	6	-1104.365(*)	328.773	.047	-2202.185	-6.544

7	-642.209	321.877	.928	-1717.005	432.586
8	-1559.196(*)	391.970	.005	-2868.041	-250.350
9	-1603.772(*)	412.915	.007	-2982.556	-224.988
10	-618.149	450.766	1.000	-2123.324	887.026

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	467.447	137.120	197.751	737.143
Medium	313.177	97.238	121.923	504.431
High	442.888	136.338	174.729	711.047

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total CSR Level	(J) Total CSR Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	154.270	168.098	.737	-249.062	557.603
	High	24.559	193.365	.999	-439.398	488.516
Medium	Low	-154.270	168.098	.737	-557.603	249.062
	High	-129.711	167.462	.824	-531.516	272.094
High	Low	-24.559	193.365	.999	-488.516	439.398
	Medium	129.711	167.462	.824	-272.094	531.516

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	1778637.433	2	889318.717	.544	.581	.003	.140
Error	564336299.244	345	1635757.389				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

Total CSR Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-177.876	149.028	-470.994	115.242
	2	-182.504	186.721	-549.760	184.751
	3	491.852	209.928	78.952	904.752
	4	904.170	228.336	455.064	1353.276
	5	458.019	253.677	-40.929	956.968
	6	536.539	271.673	2.196	1070.882
	7	-559.009	309.346	-1167.451	49.433
	8	1679.815	485.482	724.938	2634.692
	9	1585.644	433.009	733.974	2437.313
	10	800.140	522.071	-226.702	1826.982
	11	-394.872	544.156	-1465.153	675.410
Medium	1	200.807	105.683	-7.057	408.671
	2	110.759	132.413	-149.680	371.197
	3	355.209	148.870	62.402	648.016
	4	358.545	161.924	40.063	677.028
	5	215.855	179.895	-137.973	569.683

High	6	727.437	192.656	348.509	1106.365
	7	467.597	219.372	36.122	899.072
	8	693.832	344.278	16.684	1370.981
	9	1093.805	307.067	489.845	1697.764
	10	140.354	370.225	-587.828	868.537
	11	-919.256	385.887	-1678.243	-160.269
	1	200.250	148.179	-91.198	491.698
	2	120.408	185.658	-244.755	485.571
	3	772.769	208.732	362.221	1183.316
	4	354.246	227.035	-92.301	800.793
	5	233.186	252.232	-262.919	729.292
	6	792.427	270.125	261.129	1323.726
	7	761.350	307.584	156.376	1366.325
	8	1047.249	482.716	97.814	1996.685
	9	875.178	430.542	28.361	1721.995
	10	-342.736	519.096	-1363.727	678.255
	11	57.437	541.056	-1006.745	1121.620

## APPENDIX R

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for Market Capitalization

#### *General Linear Model with Level of Community Relations for Market Capitalization*

##### Between-Subjects Factors

		Value Label	N
Total Community Level	1	Low	183
	2	Medium	86
	3	High	77

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	140691935579.126	11	12790175961.739	42.138	.000	.109	1.000
	Greenhouse-Geisser	140691935579.126	1.439	97790782122.029	42.138	.000	.109	1.000
	Huynh-Feldt	140691935579.126	1.452	96925683975.691	42.138	.000	.109	1.000
	Lower-bound	140691935579.126	1.000	140691935579.126	42.138	.000	.109	1.000
year * comtot_lvl	Sphericity Assumed	15812185309.705	22	718735695.896	2.368	.000	.014	.999
	Greenhouse-Geisser	15812185309.705	2.877	5495289982.790	2.368	.073	.014	.580
	Huynh-Feldt	15812185309.705	2.903	5446676349.945	2.368	.072	.014	.583
	Lower-bound	15812185309.705	2.000	7906092654.853	2.368	.095	.014	.477
Error(year)	Sphericity Assumed	1145229982881.764	3773	303532993.078				
	Greenhouse-Geisser	1145229982881.764	493.475	2320744365.183				
	Huynh-Feldt	1145229982881.764	497.880	2300214090.193				
	Lower-bound	1145229982881.764	343.000	3338862923.854				

a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	102047572933.099	1	102047572933.099	51.348	.000	.130	1.000
	Quadratic	3961130172.090	1	3961130172.090	20.545	.000	.057	.995
	Cubic	30585986250.615	1	30585986250.615	46.684	.000	.120	1.000
year * comtot_lvl	Linear	11270922582.407	2	5635461291.204	2.836	.060	.016	.555
	Quadratic	505221822.136	2	252610911.068	1.310	.271	.008	.283
	Cubic	2713609803.792	2	1356804901.896	2.071	.128	.012	.425
Error(year)	Linear	681673357559.145	343	1987385882.097				
	Quadratic	66129954402.056	343	192798700.881				
	Cubic	224724888917.713	343	655174603.259				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	83088332050.547	2	41544166025.274	4.799	.009	.027	.795
Error	2969362033170.772	343	8657032166.679				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8692.842	770.447	7177.446	10208.238
2	8802.721	754.303	7319.080	10286.363
3	9080.102	766.543	7572.386	10587.818
4	8829.050	767.896	7318.673	10339.428
5	11543.821	1020.238	9537.112	13550.531
6	13331.262	1238.761	10894.737	15767.788
7	17731.256	1661.878	14462.502	21000.010
8	21913.727	2260.199	17468.133	26359.321
9	24856.525	3048.794	18859.838	30853.212
10	25193.472	2893.625	19501.989	30884.954
11	22078.206	2510.420	17140.450	27015.961
12	17216.934	1826.518	13624.348	20809.519

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-109.879	183.571	1.000	-732.417	512.658
	3	-387.260	273.068	1.000	-1313.308	538.788
	4	-136.208	279.995	1.000	-1085.746	813.330
	5	-2850.979(*)	421.938	.000	-4281.887	-1420.072
	6	-4638.420(*)	658.598	.000	-6871.905	-2404.936
	7	-9038.414(*)	1028.883	.000	-12527.636	-5549.192
	8	-13220.885(*)	1625.268	.000	-18732.612	-7709.159

2	9	-16163.683(*)	2463.090	.000	-24516.694	-7810.672
	10	-16500.630(*)	2313.969	.000	-24347.929	-8653.330
	11	-13385.364(*)	1940.393	.000	-19965.767	-6804.960
	12	-8524.092(*)	1256.788	.000	-12786.205	-4261.979
	1	109.879	183.571	1.000	-512.658	732.417
	3	-277.381	159.483	.997	-818.232	263.471
	4	-26.329	196.080	1.000	-691.291	638.634
	5	-2741.100(*)	379.849	.000	-4029.272	-1452.929
	6	-4528.541(*)	652.349	.000	-6740.835	-2316.247
	7	-8928.535(*)	1030.031	.000	-12421.652	-5435.417
	8	-13111.006(*)	1634.284	.000	-18653.310	-7568.702
	9	-16053.804(*)	2442.111	.000	-24335.669	-7771.938
3	10	-16390.750(*)	2321.831	.000	-24264.714	-8516.787
	11	-13275.484(*)	1953.959	.000	-19901.892	-6649.077
	12	-8414.212(*)	1278.052	.000	-12748.435	-4079.990
	1	387.260	273.068	1.000	-538.788	1313.308
	2	277.381	159.483	.997	-263.471	818.232
	4	251.052	125.015	.953	-172.907	675.011
	5	-2463.719(*)	332.077	.000	-3589.881	-1337.557
	6	-4251.160(*)	602.117	.000	-6293.103	-2209.218
	7	-8651.154(*)	996.402	.000	-12030.226	-5272.082
	8	-12833.625(*)	1616.392	.000	-18315.254	-7351.997
	9	-15776.423(*)	2420.697	.000	-23985.666	-7567.179
	10	-16113.369(*)	2309.966	.000	-23947.094	-8279.645
4	11	-12998.104(*)	1946.374	.000	-19598.791	-6397.416
	12	-8136.832(*)	1289.068	.000	-12508.415	-3765.248
	1	136.208	279.995	1.000	-813.330	1085.746
	2	26.329	196.080	1.000	-638.634	691.291
	3	-251.052	125.015	.953	-675.011	172.907
	5	-2714.771(*)	296.009	.000	-3718.617	-1710.925
	6	-4502.212(*)	575.622	.000	-6454.303	-2550.122
	7	-8902.206(*)	981.876	.000	-12232.015	-5572.397
	8	-13084.677(*)	1608.511	.000	-18539.576	-7629.778



5	9	-16027.475(*)	2413.669	.000	-24212.885	-7842.065
	10	-16364.422(*)	2305.501	.000	-24183.005	-8545.838
	11	-13249.156(*)	1943.435	.000	-19839.874	-6658.437
	12	-8387.884(*)	1286.877	.000	-12752.035	-4023.733
	1	2850.979(*)	421.938	.000	1420.072	4281.887
	2	2741.100(*)	379.849	.000	1452.929	4029.272
	3	2463.719(*)	332.077	.000	1337.557	3589.881
	4	2714.771(*)	296.009	.000	1710.925	3718.617
	6	-1787.441(*)	365.098	.000	-3025.588	-549.294
	7	-6187.435(*)	741.551	.000	-8702.236	-3672.634
	8	-10369.906(*)	1381.154	.000	-15053.775	-5686.037
	9	-13312.704(*)	2213.130	.000	-20818.032	-5807.375
6	10	-13649.650(*)	2097.337	.000	-20762.294	-6537.007
	11	-10534.384(*)	1765.122	.000	-16520.396	-4548.373
	12	-5673.112(*)	1141.552	.000	-9544.427	-1801.798
	1	4638.420(*)	658.598	.000	2404.936	6871.905
	2	4528.541(*)	652.349	.000	2316.247	6740.835
	3	4251.160(*)	602.117	.000	2209.218	6293.103
	4	4502.212(*)	575.622	.000	2550.122	6454.303
	5	1787.441(*)	365.098	.000	549.294	3025.588
	7	-4399.994(*)	510.884	.000	-6132.542	-2667.446
	8	-8582.465(*)	1170.386	.000	-12551.564	-4613.365
	9	-11525.262(*)	2038.198	.000	-18437.348	-4613.177
	10	-11862.209(*)	1917.407	.000	-18364.659	-5359.759
7	11	-8746.943(*)	1589.080	.000	-14135.948	-3357.939
	12	-3885.671(*)	1026.881	.012	-7368.105	-403.238
	1	9038.414(*)	1028.883	.000	5549.192	12527.636
	2	8928.535(*)	1030.031	.000	5435.417	12421.652
	3	8651.154(*)	996.402	.000	5272.082	12030.226
	4	8902.206(*)	981.876	.000	5572.397	12232.015
	5	6187.435(*)	741.551	.000	3672.634	8702.236
	6	4399.994(*)	510.884	.000	2667.446	6132.542
	8	-4182.471(*)	756.762	.000	-6748.857	-1616.085

8	9	-7125.269(*)	1696.711	.002	-12879.279	-1371.259
	10	-7462.215(*)	1552.120	.000	-12725.879	-2198.552
	11	-4346.950(*)	1275.333	.047	-8671.951	-21.948
	12	514.322	883.702	1.000	-2482.553	3511.198
	1	13220.885(*)	1625.268	.000	7709.159	18732.612
	2	13111.006(*)	1634.284	.000	7568.702	18653.310
	3	12833.625(*)	1616.392	.000	7351.997	18315.254
	4	13084.677(*)	1608.511	.000	7629.778	18539.576
	5	10369.906(*)	1381.154	.000	5686.037	15053.775
	6	8582.465(*)	1170.386	.000	4613.365	12551.564
	7	4182.471(*)	756.762	.000	1616.085	6748.857
	9	-2942.798	1159.721	.537	-6875.730	990.134
9	10	-3279.744	1071.693	.146	-6914.149	354.660
	11	-164.479	868.866	1.000	-3111.040	2782.082
	12	4696.793(*)	1000.546	.000	1303.670	8089.917
	1	16163.683(*)	2463.090	.000	7810.672	24516.694
	2	16053.804(*)	2442.111	.000	7771.938	24335.669
	3	15776.423(*)	2420.697	.000	7567.179	23985.666
	4	16027.475(*)	2413.669	.000	7842.065	24212.885
	5	13312.704(*)	2213.130	.000	5807.375	20818.032
	6	11525.262(*)	2038.198	.000	4613.177	18437.348
	7	7125.269(*)	1696.711	.002	1371.259	12879.279
	8	2942.798	1159.721	.537	-990.134	6875.730
	10	-336.947	1002.973	1.000	-3738.301	3064.408
10	11	2778.319	1172.731	.706	-1198.731	6755.369
	12	7639.591(*)	1690.165	.001	1907.781	13371.402
	1	16500.630(*)	2313.969	.000	8653.330	24347.929
	2	16390.750(*)	2321.831	.000	8516.787	24264.714
	3	16113.369(*)	2309.966	.000	8279.645	23947.094
	4	16364.422(*)	2305.501	.000	8545.838	24183.005
	5	13649.650(*)	2097.337	.000	6537.007	20762.294
	6	11862.209(*)	1917.407	.000	5359.759	18364.659
	7	7462.215(*)	1552.120	.000	2198.552	12725.879

11	8	3279.744	1071.693	.146	-354.660	6914.149
	9	336.947	1002.973	1.000	-3064.408	3738.301
	11	3115.266(*)	746.621	.003	583.271	5647.260
	12	7976.538(*)	1331.512	.000	3461.016	12492.060
	1	13385.364(*)	1940.393	.000	6804.960	19965.767
	2	13275.484(*)	1953.959	.000	6649.077	19901.892
	3	12998.104(*)	1946.374	.000	6397.416	19598.791
	4	13249.156(*)	1943.435	.000	6658.437	19839.874
	5	10534.384(*)	1765.122	.000	4548.373	16520.396
	6	8746.943(*)	1589.080	.000	3357.939	14135.948
	7	4346.950(*)	1275.333	.047	21.948	8671.951
12	8	164.479	868.866	1.000	-2782.082	3111.040
	9	-2778.319	1172.731	.706	-6755.369	1198.731
	10	-3115.266(*)	746.621	.003	-5647.260	-583.271
	12	4861.272(*)	868.492	.000	1915.979	7806.565
	1	8524.092(*)	1256.788	.000	4261.979	12786.205
	2	8414.212(*)	1278.052	.000	4079.990	12748.435
	3	8136.832(*)	1289.068	.000	3765.248	12508.415
	4	8387.884(*)	1286.877	.000	4023.733	12752.035
	5	5673.112(*)	1141.552	.000	1801.798	9544.427
	6	3885.671(*)	1026.881	.012	403.238	7368.105
	7	-514.322	883.702	1.000	-3511.198	2482.553
	8	-4696.793(*)	1000.546	.000	-8089.917	-1303.670
	9	-7639.591(*)	1690.165	.001	-13371.402	-1907.781
	10	-7976.538(*)	1331.512	.000	-12492.060	-3461.016
	11	-4861.272(*)	868.492	.000	-7806.565	-1915.979

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	10700.522	1985.493	6795.248	14605.797
Medium	14631.724	2896.307	8934.964	20328.483
High	21985.234	3060.896	15964.745	28005.723

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Community Level	(J) Total Community Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	-3931.202	3511.521	.601	-12356.937	4494.534
	High	-11284.711(*)	3648.461	.006	-20039.028	-2530.395
Medium	Low	3931.202	3511.521	.601	-4494.534	12356.937
	High	-7353.510	4213.986	.226	-17464.779	2757.760
High	Low	11284.711(*)	3648.461	.006	2530.395	20039.028
	Medium	7353.510	4213.986	.226	-2757.760	17464.779

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	6924027670.879	2	3462013835.440	4.799	.009	.027	.795
Error	247446836097.56	343	721419347.224				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
 a Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

Total Community Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	5603.207	985.154	3665.504	7540.910
	2	5924.516	964.510	4027.416	7821.615
	3	6348.758	980.161	4420.875	8276.641
	4	6135.951	981.891	4204.665	8067.237
	5	7643.733	1304.555	5077.798	10209.668
	6	9050.322	1583.977	5934.791	12165.852
	7	11404.522	2125.006	7224.839	15584.205
	8	13748.718	2890.066	8064.235	19433.200
	9	17911.880	3898.426	10244.050	25579.710
	10	17242.835	3700.014	9965.263	24520.408
	11	15774.988	3210.018	9461.190	22088.787
	12	11616.837	2335.527	7023.078	16210.596
Medium	1	8159.248	1437.078	5332.653	10985.843
	2	8613.734	1406.965	5846.368	11381.099
	3	9190.875	1429.795	6378.605	12003.145
	4	8732.142	1432.319	5914.908	11549.376
	5	11736.587	1903.000	7993.568	15479.605
	6	12168.034	2310.602	7623.301	16712.767
	7	16057.521	3099.820	9960.472	22154.570
	8	20718.182	4215.839	12426.030	29010.334
	9	24170.622	5686.769	12985.292	35355.952
	10	23381.818	5397.338	12765.770	33997.866
	11	18116.936	4682.565	8906.779	27327.093
	12	14534.988	3406.915	7833.913	21236.064

High	1	12316.071	1518.743	9328.850	15303.292
	2	11869.915	1486.918	8945.289	14794.541
	3	11700.673	1511.046	8728.591	14672.756
	4	11619.058	1513.713	8641.729	14596.387
	5	15251.145	2011.141	11295.422	19206.867
	6	18775.432	2441.906	13972.436	23578.428
	7	25731.726	3275.973	19288.200	32175.251
	8	31274.282	4455.412	22510.913	40037.651
	9	32487.072	6009.930	20666.115	44308.030
	10	34955.762	5704.052	23736.437	46175.087
	11	32342.693	4948.661	22609.151	42076.235
	12	25498.976	3600.519	18417.099	32580.853

### ***General Linear Model with Level of Diversity for Market Capitalization***

#### **Between-Subjects Factors**

		Value Label	N
Total Diversity Level	1	Low	116
	2	Medium	143
	3	High	87

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	155984155443.000	11	14180377767.546	49.136	.000	.125	1.000

year * divtot_lvl	Greenhouse-Geisser	155984155443.000	1.464	106576751622.271	49.136	.000	.125	1.000
	Huynh-Feldt	155984155443.000	1.477	105618990704.468	49.136	.000	.125	1.000
	Lower-bound	155984155443.000	1.000	155984155443.000	49.136	.000	.125	1.000
	Sphericity Assumed	72168153811.300	22	3280370627.787	11.367	.000	.062	1.000
	Greenhouse-Geisser	72168153811.300	2.927	24654579120.363	11.367	.000	.062	.999
	Huynh-Feldt	72168153811.300	2.954	24433018677.143	11.367	.000	.062	.999
	Lower-bound	72168153811.300	2.000	36084076905.650	11.367	.000	.062	.993
	Sphericity Assumed	1088874014380.171	3773	288596346.245				
	Greenhouse-Geisser	1088874014380.171	502.010	2169029740.744				
Error(year)	Huynh-Feldt	1088874014380.171	506.562	2149537573.047				
	Lower-bound	1088874014380.171	343.000	3174559808.689				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	111580809438.419	1	111580809438.419	59.130	.000	.147	1.000
	Quadratic	4971964427.212	1	4971964427.212	27.553	.000	.074	.999
	Cubic	34437908848.151	1	34437908848.151	56.644	.000	.142	1.000
year * divtot_lvl	Linear	45693834101.324	2	22846917050.662	12.107	.000	.066	.995
	Quadratic	4739528888.754	2	2369764444.377	13.132	.000	.071	.997
	Cubic	18904911528.010	2	9452455764.005	15.548	.000	.083	.999
Error(year)	Linear	647250446040.227	343	1887027539.476				
	Quadratic	61895647335.439	343	180453782.319				
	Cubic	208533587193.494	343	607969641.964				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
divtot_lvl	416217374500.494	2	208108687250.247	27.077	.000	.136	1.000
Error	2636232990720.824	343	7685810468.574				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. Total Diversity Level

#### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	5259.388	2349.769	637.617	9881.159
Medium	11280.380	2116.344	7117.734	15443.025
High	30875.903	2713.280	25539.141	36212.664

#### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	34684781208.375	2	17342390604.188	27.077	.000	.136	1.000
Error	219686082560.069	343	640484205.715				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05



### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	-6020.992	3162.329	.163	-13608.858	1566.875
	High	-25616.515(*)	3589.332	.000	-34228.954	-17004.075
Medium	Low	6020.992	3162.329	.163	-1566.875	13608.858
	High	-19595.523(*)	3441.046	.000	-27852.158	-11338.888
High	Low	25616.515(*)	3589.332	.000	17004.075	34228.954
	Medium	19595.523(*)	3441.046	.000	11338.888	27852.158

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8666.444	682.127	7324.766	10008.123
2	8831.892	664.078	7525.715	10138.069
3	9190.544	671.551	7869.668	10511.420
4	8957.828	671.897	7636.271	10279.384
5	11627.950	893.397	9870.722	13385.177
6	13416.640	1098.284	11256.421	15576.860

7	17749.762	1469.451	14859.492	20640.031
8	21783.002	2020.854	17808.175	25757.829
9	25263.056	2763.862	19826.804	30699.308
10	25146.758	2632.113	19969.643	30323.873
11	22033.546	2301.484	17506.748	26560.343
12	16995.259	1670.732	13709.089	20281.430

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	2	-165.448	175.211	1.000	-759.638	428.742
	3	-524.100	261.423	.955	-1410.655	362.456
	4	-291.383	267.258	1.000	-1197.729	614.962
	5	-2961.506(*)	387.005	.000	-4273.944	-1649.067
	6	-4750.196(*)	605.540	.000	-6803.749	-2696.644
	7	-9083.317(*)	926.221	.000	-12224.387	-5942.248
	8	-13116.558(*)	1473.236	.000	-18112.704	-8120.412
	9	-16596.612(*)	2261.551	.000	-24266.148	-8927.076
	10	-16480.314(*)	2132.773	.000	-23713.129	-9247.499
	11	-13367.102(*)	1807.399	.000	-19496.487	-7237.717
	12	-8328.815(*)	1176.194	.000	-12317.610	-4340.020
	12	-8328.815(*)	1176.194	.000	-12317.610	-4340.020
2	1	165.448	175.211	1.000	-428.742	759.638
	3	-358.652	151.962	.715	-873.996	156.693
	4	-125.935	186.100	1.000	-757.053	505.182
	5	-2796.058(*)	344.979	.000	-3965.977	-1626.138
	6	-4584.748(*)	600.672	.000	-6621.792	-2547.704
	7	-8917.869(*)	929.218	.000	-12069.103	-5766.636
	8	-12951.110(*)	1483.656	.000	-17982.591	-7919.629
	8	-12951.110(*)	1483.656	.000	-17982.591	-7919.629

3	9	-16431.164(*)	2241.365	.000	-24032.245	-8830.083
	10	-16314.866(*)	2141.589	.000	-23577.580	-9052.152
	11	-13201.654(*)	1822.294	.000	-19381.550	-7021.757
	12	-8163.367(*)	1198.706	.000	-12228.508	-4098.226
	1	524.100	261.423	.955	-362.456	1410.655
	2	358.652	151.962	.715	-156.693	873.996
	4	232.716	118.863	.969	-170.382	635.814
	5	-2437.406(*)	301.110	.000	-3458.552	-1416.260
	6	-4226.097(*)	555.696	.000	-6110.615	-2341.579
	7	-8559.218(*)	901.007	.000	-11614.779	-5503.657
	8	-12592.458(*)	1470.269	.000	-17578.544	-7606.373
	9	-16072.512(*)	2223.006	.000	-23611.332	-8533.693
4	10	-15956.214(*)	2133.171	.000	-23190.379	-8722.050
	11	-12843.002(*)	1818.332	.000	-19009.464	-6676.540
	12	-7804.716(*)	1212.728	.000	-11917.407	-3692.024
	1	291.383	267.258	1.000	-614.962	1197.729
	2	125.935	186.100	1.000	-505.182	757.053
	3	-232.716	118.863	.969	-635.814	170.382
	5	-2670.122(*)	266.082	.000	-3572.478	-1767.767
	6	-4458.813(*)	529.838	.000	-6255.637	-2661.989
	7	-8791.934(*)	886.840	.000	-11799.450	-5784.418
	8	-12825.175(*)	1462.926	.000	-17786.355	-7863.994
	9	-16305.228(*)	2216.581	.000	-23822.260	-8788.197
	10	-16188.931(*)	2129.084	.000	-23409.236	-8968.625
5	11	-13075.718(*)	1815.320	.000	-19231.963	-6919.473
	12	-8037.432(*)	1210.358	.000	-12142.087	-3932.776
	1	2961.506(*)	387.005	.000	1649.067	4273.944
	2	2796.058(*)	344.979	.000	1626.138	3965.977
	3	2437.406(*)	301.110	.000	1416.260	3458.552
	4	2670.122(*)	266.082	.000	1767.767	3572.478
	6	-1788.691(*)	346.429	.000	-2963.526	-613.856
	7	-6121.812(*)	677.817	.000	-8420.475	-3823.148
	8	-10155.052(*)	1264.747	.000	-14444.154	-5865.951

6	9	-13635.106(*)	2043.135	.000	-20563.937	-6706.276
	10	-13518.808(*)	1946.953	.000	-20121.457	-6916.160
	11	-10405.596(*)	1660.224	.000	-16035.868	-4775.324
	12	-5367.310(*)	1083.704	.000	-9042.445	-1692.174
	1	4750.196(*)	605.540	.000	2696.644	6803.749
	2	4584.748(*)	600.672	.000	2547.704	6621.792
	3	4226.097(*)	555.696	.000	2341.579	6110.615
	4	4458.813(*)	529.838	.000	2661.989	6255.637
	5	1788.691(*)	346.429	.000	613.856	2963.526
	7	-4333.121(*)	460.214	.000	-5893.833	-2772.409
	8	-8366.362(*)	1069.652	.000	-11993.845	-4738.879
	9	-11846.416(*)	1884.840	.000	-18238.423	-5454.408
7	10	-11730.118(*)	1781.815	.000	-17772.739	-5687.496
	11	-8616.905(*)	1495.491	.000	-13688.525	-3545.286
	12	-3578.619(*)	974.912	.018	-6884.812	-272.425
	1	9083.317(*)	926.221	.000	5942.248	12224.387
	2	8917.869(*)	929.218	.000	5766.636	12069.103
	3	8559.218(*)	901.007	.000	5503.657	11614.779
	4	8791.934(*)	886.840	.000	5784.418	11799.450
	5	6121.812(*)	677.817	.000	3823.148	8420.475
	6	4333.121(*)	460.214	.000	2772.409	5893.833
	8	-4033.241(*)	702.663	.000	-6416.161	-1650.320
	9	-7513.294(*)	1586.754	.000	-12894.411	-2132.178
	10	-7396.997(*)	1455.634	.000	-12333.450	-2460.543
8	11	-4283.784(*)	1208.887	.029	-8383.450	-184.119
	12	754.502	831.560	1.000	-2065.545	3574.550
	1	13116.558(*)	1473.236	.000	8120.412	18112.704
	2	12951.110(*)	1483.656	.000	7919.629	17982.591
	3	12592.458(*)	1470.269	.000	7606.373	17578.544
	4	12825.175(*)	1462.926	.000	7863.994	17786.355
	5	10155.052(*)	1264.747	.000	5865.951	14444.154
	6	8366.362(*)	1069.652	.000	4738.879	11993.845
	7	4033.241(*)	702.663	.000	1650.320	6416.161

9	9	-3480.054	1096.833	.103	-7199.716	239.608
	10	-3363.756	1014.352	.065	-6803.700	76.188
	11	-250.544	823.901	1.000	-3044.618	2543.530
	12	4787.743(*)	918.391	.000	1673.229	7902.257
	1	16596.612(*)	2261.551	.000	8927.076	24266.148
	2	16431.164(*)	2241.365	.000	8830.083	24032.245
	3	16072.512(*)	2223.006	.000	8533.693	23611.332
	4	16305.228(*)	2216.581	.000	8788.197	23822.260
	5	13635.106(*)	2043.135	.000	6706.276	20563.937
	6	11846.416(*)	1884.840	.000	5454.408	18238.423
	7	7513.294(*)	1586.754	.000	2132.178	12894.411
	8	3480.054	1096.833	.103	-239.608	7199.716
10	10	116.298	954.047	1.000	-3119.138	3351.734
	11	3229.510	1101.639	.212	-506.448	6965.468
	12	8267.797(*)	1564.869	.000	2960.899	13574.695
	1	16480.314(*)	2132.773	.000	9247.499	23713.129
	2	16314.866(*)	2141.589	.000	9052.152	23577.580
	3	15956.214(*)	2133.171	.000	8722.050	23190.379
	4	16188.931(*)	2129.084	.000	8968.625	23409.236
	5	13518.808(*)	1946.953	.000	6916.160	20121.457
	6	11730.118(*)	1781.815	.000	5687.496	17772.739
	7	7396.997(*)	1455.634	.000	2460.543	12333.450
	8	3363.756	1014.352	.065	-76.188	6803.700
	9	-116.298	954.047	1.000	-3351.734	3119.138
11	11	3113.212(*)	696.498	.001	751.198	5475.227
	12	8151.499(*)	1226.306	.000	3992.759	12310.239
	1	13367.102(*)	1807.399	.000	7237.717	19496.487
	2	13201.654(*)	1822.294	.000	7021.757	19381.550
	3	12843.002(*)	1818.332	.000	6676.540	19009.464
	4	13075.718(*)	1815.320	.000	6919.473	19231.963
	5	10405.596(*)	1660.224	.000	4775.324	16035.868
	6	8616.905(*)	1495.491	.000	3545.286	13688.525
	7	4283.784(*)	1208.887	.029	184.119	8383.450

12	8	250.544	823.901	1.000	-2543.530	3044.618
	9	-3229.510	1101.639	.212	-6965.468	506.448
	10	-3113.212(*)	696.498	.001	-5475.227	-751.198
	12	5038.286(*)	810.597	.000	2289.331	7787.241
	1	8328.815(*)	1176.194	.000	4340.020	12317.610
	2	8163.367(*)	1198.706	.000	4098.226	12228.508
	3	7804.716(*)	1212.728	.000	3692.024	11917.407
	4	8037.432(*)	1210.358	.000	3932.776	12142.087
	5	5367.310(*)	1083.704	.000	1692.174	9042.445
	6	3578.619(*)	974.912	.018	272.425	6884.812
	7	-754.502	831.560	1.000	-3574.550	2065.545
	8	-4787.743(*)	918.391	.000	-7902.257	-1673.229
	9	-8267.797(*)	1564.869	.000	-13574.695	-2960.899
	10	-8151.499(*)	1226.306	.000	-12310.239	-3992.759
	11	-5038.286(*)	810.597	.000	-7787.241	-2289.331

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Total Diversity Level \* year

#### Estimates

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	3301.147	1154.009	1031.322	5570.972
	2	3470.637	1123.473	1260.873	5680.401
	3	3782.454	1136.116	1547.822	6017.086
	4	3530.391	1136.701	1294.609	5766.174
	5	4335.085	1511.432	1362.243	7307.927

Medium	6	4803.169	1858.055	1148.553	8457.785
	7	5951.644	2485.988	1061.943	10841.345
	8	6228.889	3418.841	-495.645	12953.423
	9	6790.012	4675.847	-2406.931	15986.956
	10	7488.969	4452.957	-1269.571	16247.510
	11	7474.116	3893.604	-184.231	15132.462
	12	5956.141	2826.512	396.663	11515.619
	1	5674.010	1039.370	3629.669	7718.351
	2	5949.617	1011.868	3959.371	7939.864
	3	6156.549	1023.255	4143.905	8169.193
	4	5859.577	1023.782	3845.896	7873.257
	5	7533.489	1361.287	4855.968	10211.009
High	6	9059.517	1673.476	5767.950	12351.085
	7	11500.567	2239.031	7096.608	15904.526
	8	14998.167	3079.214	8941.647	21054.687
	9	19062.218	4211.349	10778.897	27345.538
	10	19239.015	4010.601	11350.546	27127.484
	11	17281.464	3506.814	10383.895	24179.032
	12	13050.367	2545.727	8043.166	18057.568
	1	17024.176	1332.535	14403.208	19645.144
	2	17075.422	1297.275	14523.806	19627.038
	3	17632.628	1311.874	15052.297	20212.958
	4	17483.515	1312.550	14901.855	20065.174
	5	23015.275	1745.251	19582.533	26448.017
	6	26387.235	2145.497	22167.248	30607.222
	7	35797.074	2870.572	30150.933	41443.214
	8	44121.950	3947.738	36357.127	51886.773
	9	49936.938	5399.203	39317.223	60556.654
	10	48712.290	5141.832	38598.799	58825.782
	11	41345.058	4495.947	32501.961	50188.155
	12	31979.269	3263.775	25559.737	38398.802

### Multivariate Tests

Total Diversity Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.030	.951(b)	11.000	333.000	.492	.030	.531
	Wilks' lambda	.970	.951(b)	11.000	333.000	.492	.030	.531
	Hotelling's trace	.031	.951(b)	11.000	333.000	.492	.030	.531
	Roy's largest root	.031	.951(b)	11.000	333.000	.492	.030	.531
Medium	Pillai's trace	.073	2.382(b)	11.000	333.000	.008	.073	.953
	Wilks' lambda	.927	2.382(b)	11.000	333.000	.008	.073	.953
	Hotelling's trace	.079	2.382(b)	11.000	333.000	.008	.073	.953
	Roy's largest root	.079	2.382(b)	11.000	333.000	.008	.073	.953
High	Pillai's trace	.305	13.296(b)	11.000	333.000	.000	.305	1.000
	Wilks' lambda	.695	13.296(b)	11.000	333.000	.000	.305	1.000
	Hotelling's trace	.439	13.296(b)	11.000	333.000	.000	.305	1.000
	Roy's largest root	.439	13.296(b)	11.000	333.000	.000	.305	1.000

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

Total Diversity Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	1	2	-169.491	296.419	1.000	-1174.729	835.748
		3	-481.308	442.270	1.000	-1981.165	1018.550
		4	-229.245	452.142	1.000	-1762.582	1304.092
		5	-1033.939	654.727	1.000	-3254.296	1186.419
		6	-1502.023	1024.441	1.000	-4976.182	1972.137
		7	-2650.498	1566.963	.998	-7964.496	2663.501



2	8	-2927.743	2492.392	1.000	-11380.124	5524.639
	9	-3488.866	3826.046	1.000	-16464.034	9486.303
	10	-4187.823	3608.183	1.000	-16424.156	8048.510
	11	-4172.969	3057.722	1.000	-14542.541	6196.603
	12	-2654.995	1989.862	1.000	-9403.159	4093.170
	1	169.491	296.419	1.000	-835.748	1174.729
	3	-311.817	257.086	1.000	-1183.666	560.032
	4	-59.754	314.841	1.000	-1127.466	1007.957
	5	-864.448	583.629	1.000	-2843.695	1114.799
	6	-1332.532	1016.206	1.000	-4778.763	2113.699
	7	-2481.007	1572.033	1.000	-7812.201	2850.187
	8	-2758.252	2510.019	1.000	-11270.412	5753.908
3	9	-3319.375	3791.897	1.000	-16178.733	9539.983
	10	-4018.332	3623.098	1.000	-16305.247	8268.583
	11	-4003.478	3082.921	1.000	-14458.505	6451.548
	12	-2485.504	2027.948	1.000	-9362.829	4391.821
	1	481.308	442.270	1.000	-1018.550	1981.165
	2	311.817	257.086	1.000	-560.032	1183.666
	4	252.063	201.091	1.000	-429.890	934.016
	5	-552.631	509.412	1.000	-2280.186	1174.924
	6	-1020.715	940.116	1.000	-4208.905	2167.475
	7	-2169.190	1524.306	1.000	-7338.527	3000.148
	8	-2446.435	2487.373	1.000	-10881.795	5988.925
	9	-3007.558	3760.837	1.000	-15761.583	9746.468
4	10	-3706.515	3608.856	1.000	-15945.131	8532.101
	11	-3691.661	3076.218	1.000	-14123.959	6740.636
	12	-2173.687	2051.669	1.000	-9131.457	4784.083
	1	229.245	452.142	1.000	-1304.092	1762.582
	2	59.754	314.841	1.000	-1007.957	1127.466
	3	-252.063	201.091	1.000	-934.016	429.890
	5	-804.694	450.152	.994	-2331.281	721.893
	6	-1272.778	896.369	1.000	-4312.609	1767.054
	7	-2421.253	1500.338	.999	-7509.309	2666.804

5	8	-2698.498	2474.948	1.000	-11091.724	5694.729
	9	-3259.621	3749.968	1.000	-15976.785	9457.544
	10	-3958.578	3601.942	1.000	-16173.747	8256.592
	11	-3943.724	3071.122	1.000	-14358.737	6471.289
	12	-2425.750	2047.660	1.000	-9369.925	4518.425
	1	1033.939	654.727	1.000	-1186.419	3254.296
	2	864.448	583.629	1.000	-1114.799	2843.695
	3	552.631	509.412	1.000	-1174.924	2280.186
	4	804.694	450.152	.994	-721.893	2331.281
	6	-468.084	586.081	1.000	-2455.646	1519.479
	7	-1616.559	1146.718	1.000	-5505.392	2272.274
	8	-1893.804	2139.673	1.000	-9150.021	5362.413
6	9	-2454.927	3456.536	1.000	-14176.985	9267.131
	10	-3153.884	3293.816	1.000	-14324.113	8016.345
	11	-3139.030	2808.733	1.000	-12664.213	6386.152
	12	-1621.056	1833.389	1.000	-7838.577	4596.466
	1	1502.023	1024.441	1.000	-1972.137	4976.182
	2	1332.532	1016.206	1.000	-2113.699	4778.763
	3	1020.715	940.116	1.000	-2167.475	4208.905
	4	1272.778	896.369	1.000	-1767.054	4312.609
	5	468.084	586.081	1.000	-1519.479	2455.646
	7	-1148.475	778.581	1.000	-3788.857	1491.907
	8	-1425.720	1809.616	1.000	-7562.624	4711.184
	9	-1986.843	3188.735	1.000	-12800.715	8827.029
7	10	-2685.800	3014.439	1.000	-12908.587	7536.987
	11	-2670.947	2530.042	1.000	-11251.012	5909.119
	12	-1152.972	1649.337	1.000	-6746.324	4440.380
	1	2650.498	1566.963	.998	-2663.501	7964.496
	2	2481.007	1572.033	1.000	-2850.187	7812.201
	3	2169.190	1524.306	1.000	-3000.148	7338.527
	4	2421.253	1500.338	.999	-2666.804	7509.309
	5	1616.559	1146.718	1.000	-2272.274	5505.392
	6	1148.475	778.581	1.000	-1491.907	3788.857

8	8	-277.245	1188.751	1.000	-4308.623	3754.133
	9	-838.368	2684.439	1.000	-9942.034	8265.298
	10	-1537.325	2462.613	1.000	-9888.719	6814.069
	11	-1522.472	2045.171	1.000	-8458.204	5413.261
	12	-4.497	1406.817	1.000	-4775.397	4766.403
	1	2927.743	2492.392	1.000	-5524.639	11380.124
	2	2758.252	2510.019	1.000	-5753.908	11270.412
	3	2446.435	2487.373	1.000	-5988.925	10881.795
	4	2698.498	2474.948	1.000	-5694.729	11091.724
	5	1893.804	2139.673	1.000	-5362.413	9150.021
	6	1425.720	1809.616	1.000	-4711.184	7562.624
	7	277.245	1188.751	1.000	-3754.133	4308.623
9	9	-561.123	1855.601	1.000	-6853.973	5731.727
	10	-1260.080	1716.060	1.000	-7079.708	4559.549
	11	-1245.226	1393.860	1.000	-5972.185	3481.732
	12	272.748	1553.715	1.000	-4996.325	5541.821
	1	3488.866	3826.046	1.000	-9486.303	16464.034
	2	3319.375	3791.897	1.000	-9539.983	16178.733
	3	3007.558	3760.837	1.000	-9746.468	15761.583
	4	3259.621	3749.968	1.000	-9457.544	15976.785
	5	2454.927	3456.536	1.000	-9267.131	14176.985
	6	1986.843	3188.735	1.000	-8827.029	12800.715
	7	838.368	2684.439	1.000	-8265.298	9942.034
	8	561.123	1855.601	1.000	-5731.727	6853.973
10	10	-698.957	1614.039	1.000	-6172.603	4774.689
	11	-684.104	1863.731	1.000	-7004.523	5636.316
	12	833.871	2647.414	1.000	-8144.234	9811.975
	1	4187.823	3608.183	1.000	-8048.510	16424.156
	2	4018.332	3623.098	1.000	-8268.583	16305.247
	3	3706.515	3608.856	1.000	-8532.101	15945.131
	4	3958.578	3601.942	1.000	-8256.592	16173.747
	5	3153.884	3293.816	1.000	-8016.345	14324.113
	6	2685.800	3014.439	1.000	-7536.987	12908.587

Medium	11	7	1537.325	2462.613	1.000	-6814.069	9888.719
		8	1260.080	1716.060	1.000	-4559.549	7079.708
		9	698.957	1614.039	1.000	-4774.689	6172.603
		11	14.854	1178.321	1.000	-3981.155	4010.862
		12	1532.828	2074.641	1.000	-5502.846	8568.502
		1	4172.969	3057.722	1.000	-6196.603	14542.541
		2	4003.478	3082.921	1.000	-6451.548	14458.505
		3	3691.661	3076.218	1.000	-6740.636	14123.959
		4	3943.724	3071.122	1.000	-6471.289	14358.737
		5	3139.030	2808.733	1.000	-6386.152	12664.213
		6	2670.947	2530.042	1.000	-5909.119	11251.012
	12	7	1522.472	2045.171	1.000	-5413.261	8458.204
		8	1245.226	1393.860	1.000	-3481.732	5972.185
		9	684.104	1863.731	1.000	-5636.316	7004.523
		10	-14.854	1178.321	1.000	-4010.862	3981.155
		12	1517.975	1371.351	1.000	-3132.653	6168.602
		1	2654.995	1989.862	1.000	-4093.170	9403.159
		2	2485.504	2027.948	1.000	-4391.821	9362.829
		3	2173.687	2051.669	1.000	-4784.083	9131.457
		4	2425.750	2047.660	1.000	-4518.425	9369.925
		5	1621.056	1833.389	1.000	-4596.466	7838.577
		6	1152.972	1649.337	1.000	-4440.380	6746.324
	1	7	4.497	1406.817	1.000	-4766.403	4775.397
		8	-272.748	1553.715	1.000	-5541.821	4996.325
		9	-833.871	2647.414	1.000	-9811.975	8144.234
		10	-1532.828	2074.641	1.000	-8568.502	5502.846
		11	-1517.975	1371.351	1.000	-6168.602	3132.653
		2	-275.608	266.973	1.000	-1180.986	629.771
		3	-482.539	398.335	1.000	-1833.401	868.323
		4	-185.567	407.226	1.000	-1566.582	1195.449
		5	-1859.479	589.686	.110	-3859.267	140.309
		6	-3385.508(*)	922.673	.018	-6514.545	-256.471
		7	-5826.557(*)	1411.301	.003	-10612.664	-1040.450

2	8	-9324.157(*)	2244.798	.003	-16936.881	-1711.433
	9	-13388.208(*)	3445.968	.008	-25074.426	-1701.990
	10	-13565.005(*)	3249.746	.003	-24585.783	-2544.227
	11	-11607.454(*)	2753.969	.002	-20946.915	-2267.993
	12	-7376.357(*)	1792.189	.003	-13454.160	-1298.554
	1	275.608	266.973	1.000	-629.771	1180.986
	3	-206.932	231.547	1.000	-992.172	578.308
	4	90.041	283.565	1.000	-871.605	1051.686
	5	-1583.871	525.652	.168	-3366.500	198.757
	6	-3109.900(*)	915.256	.049	-6213.783	-6.017
	7	-5550.950(*)	1415.868	.007	-10352.544	-749.356
	8	-9048.550(*)	2260.674	.005	-16715.114	-1381.985
3	9	-13112.600(*)	3415.211	.010	-24694.513	-1530.688
	10	-13289.398(*)	3263.180	.004	-24355.733	-2223.062
	11	-11331.846(*)	2776.664	.004	-20748.273	-1915.420
	12	-7100.750(*)	1826.492	.008	-13294.883	-906.617
	1	482.539	398.335	1.000	-868.323	1833.401
	2	206.932	231.547	1.000	-578.308	992.172
	4	296.972	181.114	.999	-317.236	911.180
	5	-1376.940	458.807	.174	-2932.880	179.000
	6	-2902.968(*)	846.725	.044	-5774.444	-31.493
	7	-5344.018(*)	1372.882	.008	-9999.835	-688.201
	8	-8841.618(*)	2240.277	.006	-16439.011	-1244.225
	9	-12905.669(*)	3387.236	.011	-24392.712	-1418.625
4	10	-13082.466(*)	3250.353	.005	-24105.300	-2059.632
	11	-11124.915(*)	2770.628	.005	-20520.870	-1728.959
	12	-6893.818(*)	1847.856	.015	-13160.405	-627.232
	1	185.567	407.226	1.000	-1195.449	1566.582
	2	-90.041	283.565	1.000	-1051.686	871.605
	3	-296.972	181.114	.999	-911.180	317.236
	5	-1673.912(*)	405.434	.003	-3048.848	-298.976
	6	-3199.941(*)	807.324	.006	-5937.796	-462.086
	7	-5640.990(*)	1351.295	.002	-10223.600	-1058.380

5	8	-9138.590(*)	2229.088	.003	-16698.035	-1579.145
	9	-13202.641(*)	3377.447	.007	-24656.485	-1748.797
	10	-13379.438(*)	3244.126	.003	-24381.156	-2377.721
	11	-11421.887(*)	2766.037	.003	-20802.275	-2041.499
	12	-7190.791(*)	1844.246	.008	-13445.133	-936.449
	1	1859.479	589.686	.110	-140.309	3859.267
	2	1583.871	525.652	.168	-198.757	3366.500
	3	1376.940	458.807	.174	-179.000	2932.880
	4	1673.912(*)	405.434	.003	298.976	3048.848
	6	-1526.029	527.860	.237	-3316.147	264.090
	7	-3967.078(*)	1032.803	.010	-7469.596	-464.561
	8	-7464.678(*)	1927.119	.008	-14000.064	-929.292
6	9	-11528.729(*)	3113.164	.016	-22086.320	-971.138
	10	-11705.526(*)	2966.609	.006	-21766.107	-1644.945
	11	-9747.975(*)	2529.714	.009	-18326.928	-1169.022
	12	-5516.878	1651.260	.059	-11116.753	82.996
	1	3385.508(*)	922.673	.018	256.471	6514.545
	2	3109.900(*)	915.256	.049	6.017	6213.783
	3	2902.968(*)	846.725	.044	31.493	5774.444
	4	3199.941(*)	807.324	.006	462.086	5937.796
	5	1526.029	527.860	.237	-264.090	3316.147
	7	-2441.050(*)	701.237	.037	-4819.136	-62.963
	8	-5938.649(*)	1629.850	.020	-11465.914	-411.384
	9	-10002.700(*)	2871.967	.036	-19742.324	-263.076
7	10	-10179.498(*)	2714.986	.014	-19386.755	-972.240
	11	-8221.946(*)	2278.709	.023	-15949.669	-494.223
	12	-3990.850	1485.492	.394	-9028.560	1046.860
	1	5826.557(*)	1411.301	.003	1040.450	10612.664
	2	5550.950(*)	1415.868	.007	749.356	10352.544
	3	5344.018(*)	1372.882	.008	688.201	9999.835
	4	5640.990(*)	1351.295	.002	1058.380	10223.600
	5	3967.078(*)	1032.803	.010	464.561	7469.596
	6	2441.050(*)	701.237	.037	62.963	4819.136

8	8	-3497.600	1070.660	.076	-7128.502	133.302
	9	-7561.651	2417.767	.119	-15760.960	637.659
	10	-7738.448(*)	2217.978	.036	-15260.217	-216.680
	11	-5780.897	1842.004	.115	-12027.635	465.842
	12	-1549.800	1267.064	1.000	-5846.760	2747.160
	1	9324.157(*)	2244.798	.003	1711.433	16936.881
	2	9048.550(*)	2260.674	.005	1381.985	16715.114
	3	8841.618(*)	2240.277	.006	1244.225	16439.011
	4	9138.590(*)	2229.088	.003	1579.145	16698.035
	5	7464.678(*)	1927.119	.008	929.292	14000.064
	6	5938.649(*)	1629.850	.020	411.384	11465.914
	7	3497.600	1070.660	.076	-133.302	7128.502
9	9	-4064.051	1671.266	.644	-9731.771	1603.669
	10	-4240.848	1545.587	.345	-9482.356	1000.660
	11	-2283.297	1255.394	.992	-6540.680	1974.087
	12	1947.800	1399.370	1.000	-2797.845	6693.444
	1	13388.208(*)	3445.968	.008	1701.990	25074.426
	2	13112.600(*)	3415.211	.010	1530.688	24694.513
	3	12905.669(*)	3387.236	.011	1418.625	24392.712
	4	13202.641(*)	3377.447	.007	1748.797	24656.485
	5	11528.729(*)	3113.164	.016	971.138	22086.320
	6	10002.700(*)	2871.967	.036	263.076	19742.324
	7	7561.651	2417.767	.119	-637.659	15760.960
	8	4064.051	1671.266	.644	-1603.669	9731.771
10	10	-176.797	1453.700	1.000	-5106.693	4753.098
	11	1780.754	1678.588	1.000	-3911.796	7473.304
	12	6011.850	2384.420	.554	-2074.371	14098.072
	1	13565.005(*)	3249.746	.003	2544.227	24585.783
	2	13289.398(*)	3263.180	.004	2223.062	24355.733
	3	13082.466(*)	3250.353	.005	2059.632	24105.300
	4	13379.438(*)	3244.126	.003	2377.721	24381.156
	5	11705.526(*)	2966.609	.006	1644.945	21766.107
	6	10179.498(*)	2714.986	.014	972.240	19386.755

High	11	7	7738.448(*)	2217.978	.036	216.680	15260.217
		8	4240.848	1545.587	.345	-1000.660	9482.356
		9	176.797	1453.700	1.000	-4753.098	5106.693
		11	1957.551	1061.267	.989	-1641.494	5556.597
		12	6188.648	1868.546	.065	-148.104	12525.400
		1	11607.454(*)	2753.969	.002	2267.993	20946.915
		2	11331.846(*)	2776.664	.004	1915.420	20748.273
		3	11124.915(*)	2770.628	.005	1728.959	20520.870
		4	11421.887(*)	2766.037	.003	2041.499	20802.275
		5	9747.975(*)	2529.714	.009	1169.022	18326.928
		6	8221.946(*)	2278.709	.023	494.223	15949.669
	12	7	5780.897	1842.004	.115	-465.842	12027.635
		8	2283.297	1255.394	.992	-1974.087	6540.680
		9	-1780.754	1678.588	1.000	-7473.304	3911.796
		10	-1957.551	1061.267	.989	-5556.597	1641.494
		12	4231.096(*)	1235.122	.044	42.461	8419.731
		1	7376.357(*)	1792.189	.003	1298.554	13454.160
		2	7100.750(*)	1826.492	.008	906.617	13294.883
		3	6893.818(*)	1847.856	.015	627.232	13160.405
		4	7190.791(*)	1844.246	.008	936.449	13445.133
		5	5516.878	1651.260	.059	-82.996	11116.753
		6	3990.850	1485.492	.394	-1046.860	9028.560
	1	7	1549.800	1267.064	1.000	-2747.160	5846.760
		8	-1947.800	1399.370	1.000	-6693.444	2797.845
		9	-6011.850	2384.420	.554	-14098.072	2074.371
		10	-6188.648	1868.546	.065	-12525.400	148.104
		11	-4231.096(*)	1235.122	.044	-8419.731	-42.461
		2	-51.246	342.275	1.000	-1211.995	1109.503
		3	-608.452	510.689	1.000	-2340.338	1123.434
		4	-459.339	522.089	1.000	-2229.884	1311.206
		5	-5991.099(*)	756.013	.000	-8554.947	-3427.251
		6	-9363.059(*)	1182.922	.000	-13374.672	-5351.445
		7	-18772.898(*)	1809.373	.000	-24908.975	-12636.821



2	8	-27097.774(*)	2877.966	.000	-36857.744	-17337.805
	9	-32912.762(*)	4417.938	.000	-47895.197	-17930.328
	10	-31688.114(*)	4166.370	.000	-45817.415	-17558.814
	11	-24320.882(*)	3530.754	.000	-36294.632	-12347.131
	12	-14955.093(*)	2297.694	.000	-22747.202	-7162.985
	1	51.246	342.275	1.000	-1109.503	1211.995
	3	-557.206	296.857	.985	-1563.931	449.519
	4	-408.093	363.547	1.000	-1640.980	824.795
	5	-5939.853(*)	673.917	.000	-8225.290	-3654.416
	6	-9311.813(*)	1173.413	.000	-13291.177	-5332.448
	7	-18721.652(*)	1815.227	.000	-24877.584	-12565.720
	8	-27046.528(*)	2898.320	.000	-36875.524	-17217.532
3	9	-32861.516(*)	4378.505	.000	-47710.224	-18012.808
	10	-31636.868(*)	4183.593	.000	-45824.576	-17449.161
	11	-24269.636(*)	3559.850	.000	-36342.061	-12197.211
	12	-14903.848(*)	2341.672	.000	-22845.098	-6962.597
	1	608.452	510.689	1.000	-1123.434	2340.338
	2	557.206	296.857	.985	-449.519	1563.931
	4	149.113	232.199	1.000	-638.338	936.565
	5	-5382.647(*)	588.218	.000	-7377.456	-3387.839
	6	-8754.607(*)	1085.552	.000	-12436.011	-5073.202
	7	-18164.446(*)	1760.117	.000	-24133.483	-12195.409
	8	-26489.322(*)	2872.170	.000	-36229.637	-16749.008
	9	-32304.310(*)	4342.640	.000	-47031.391	-17577.230
4	10	-31079.662(*)	4167.148	.000	-45211.599	-16947.726
	11	-23712.430(*)	3552.111	.000	-35758.609	-11666.250
	12	-14346.642(*)	2369.063	.000	-22380.782	-6312.501
	1	459.339	522.089	1.000	-1311.206	2229.884
	2	408.093	363.547	1.000	-824.795	1640.980
	3	-149.113	232.199	1.000	-936.565	638.338
	5	-5531.760(*)	519.790	.000	-7294.511	-3769.010
	6	-8903.720(*)	1035.037	.000	-12413.815	-5393.625
	7	-18313.559(*)	1732.441	.000	-24188.741	-12438.377

5	8	-26638.436(*)	2857.824	.000	-36330.099	-16946.773
	9	-32453.424(*)	4330.090	.000	-47137.941	-17768.907
	10	-31228.776(*)	4159.164	.000	-45333.639	-17123.913
	11	-23861.543(*)	3546.226	.000	-35887.764	-11835.322
	12	-14495.755(*)	2364.434	.000	-22514.197	-6477.312
	1	5991.099(*)	756.013	.000	3427.251	8554.947
	2	5939.853(*)	673.917	.000	3654.416	8225.290
	3	5382.647(*)	588.218	.000	3387.839	7377.456
	4	5531.760(*)	519.790	.000	3769.010	7294.511
	6	-3371.960(*)	676.749	.000	-5666.999	-1076.920
	7	-12781.799(*)	1324.116	.000	-17272.236	-8291.361
	8	-21106.675(*)	2470.682	.000	-29485.433	-12727.917
6	9	-26921.663(*)	3991.264	.000	-40457.130	-13386.197
	10	-25697.015(*)	3803.371	.000	-38595.285	-12798.746
	11	-18329.783(*)	3243.246	.000	-29328.516	-7331.049
	12	-8963.994(*)	2117.015	.002	-16143.370	-1784.619
	1	9363.059(*)	1182.922	.000	5351.445	13374.672
	2	9311.813(*)	1173.413	.000	5332.448	13291.177
	3	8754.607(*)	1085.552	.000	5073.202	12436.011
	4	8903.720(*)	1035.037	.000	5393.625	12413.815
	5	3371.960(*)	676.749	.000	1076.920	5666.999
	7	-9409.839(*)	899.028	.000	-12458.689	-6360.989
	8	-17734.715(*)	2089.565	.000	-24821.002	-10648.429
	9	-23549.704(*)	3682.034	.000	-36036.487	-11062.920
7	10	-22325.056(*)	3480.775	.000	-34129.314	-10520.798
	11	-14957.823(*)	2921.441	.000	-24865.229	-5050.417
	12	-5592.035	1904.490	.209	-12050.682	866.612
	1	18772.898(*)	1809.373	.000	12636.821	24908.975
	2	18721.652(*)	1815.227	.000	12565.720	24877.584
	3	18164.446(*)	1760.117	.000	12195.409	24133.483
	4	18313.559(*)	1732.441	.000	12438.377	24188.741
	5	12781.799(*)	1324.116	.000	8291.361	17272.236
	6	9409.839(*)	899.028	.000	6360.989	12458.689

8	8	-8324.877(*)	1372.651	.000	-12979.911	-3669.842
	9	-14139.865(*)	3099.723	.000	-24651.873	-3627.857
	10	-12915.217(*)	2843.581	.001	-22558.576	-3271.857
	11	-5547.984	2361.560	.725	-13556.678	2460.710
	12	3817.804	1624.452	.724	-1691.157	9326.765
	1	27097.774(*)	2877.966	.000	17337.805	36857.744
	2	27046.528(*)	2898.320	.000	17217.532	36875.524
	3	26489.322(*)	2872.170	.000	16749.008	36229.637
	4	26638.436(*)	2857.824	.000	16946.773	36330.099
	5	21106.675(*)	2470.682	.000	12727.917	29485.433
	6	17734.715(*)	2089.565	.000	10648.429	24821.002
	7	8324.877(*)	1372.651	.000	3669.842	12979.911
9	9	-5814.988	2142.664	.370	-13081.346	1451.369
	10	-4590.340	1981.535	.756	-11310.268	2129.588
	11	2776.892	1609.490	.997	-2681.329	8235.114
	12	12142.681(*)	1794.076	.000	6058.479	18226.883
	1	32912.762(*)	4417.938	.000	17930.328	47895.197
	2	32861.516(*)	4378.505	.000	18012.808	47710.224
	3	32304.310(*)	4342.640	.000	17577.230	47031.391
	4	32453.424(*)	4330.090	.000	17768.907	47137.941
	5	26921.663(*)	3991.264	.000	13386.197	40457.130
	6	23549.704(*)	3682.034	.000	11062.920	36036.487
	7	14139.865(*)	3099.723	.000	3627.857	24651.873
	8	5814.988	2142.664	.370	-1451.369	13081.346
10	10	1224.648	1863.731	1.000	-5095.774	7545.070
	11	8591.881(*)	2152.051	.005	1293.689	15890.072
	12	17957.669(*)	3056.970	.000	7590.647	28324.691
	1	31688.114(*)	4166.370	.000	17558.814	45817.415
	2	31636.868(*)	4183.593	.000	17449.161	45824.576
	3	31079.662(*)	4167.148	.000	16947.726	45211.599
	4	31228.776(*)	4159.164	.000	17123.913	45333.639
	5	25697.015(*)	3803.371	.000	12798.746	38595.285
	6	22325.056(*)	3480.775	.000	10520.798	34129.314

11	7	12915.217(*)	2843.581	.001	3271.857	22558.576
	8	4590.340	1981.535	.756	-2129.588	11310.268
	9	-1224.648	1863.731	1.000	-7545.070	5095.774
	11	7367.233(*)	1360.608	.000	2753.039	11981.426
	12	16733.021(*)	2395.589	.000	8608.924	24857.118
	1	24320.882(*)	3530.754	.000	12347.131	36294.632
	2	24269.636(*)	3559.850	.000	12197.211	36342.061
	3	23712.430(*)	3552.111	.000	11666.250	35758.609
	4	23861.543(*)	3546.226	.000	11835.322	35887.764
	5	18329.783(*)	3243.246	.000	7331.049	29328.516
	6	14957.823(*)	2921.441	.000	5050.417	24865.229
12	7	5547.984	2361.560	.725	-2460.710	13556.678
	8	-2776.892	1609.490	.997	-8235.114	2681.329
	9	-8591.881(*)	2152.051	.005	-15890.072	-1293.689
	10	-7367.233(*)	1360.608	.000	-11981.426	-2753.039
	12	9365.788(*)	1583.500	.000	3995.706	14735.870
	1	14955.093(*)	2297.694	.000	7162.985	22747.202
	2	14903.848(*)	2341.672	.000	6962.597	22845.098
	3	14346.642(*)	2369.063	.000	6312.501	22380.782
	4	14495.755(*)	2364.434	.000	6477.312	22514.197
	5	8963.994(*)	2117.015	.002	1784.619	16143.370
	6	5592.035	1904.490	.209	-866.612	12050.682
	7	-3817.804	1624.452	.724	-9326.765	1691.157
	8	-12142.681(*)	1794.076	.000	-18226.883	-6058.479
	9	-17957.669(*)	3056.970	.000	-28324.691	-7590.647
	10	-16733.021(*)	2395.589	.000	-24857.118	-8608.924
	11	-9365.788(*)	1583.500	.000	-14735.870	-3995.706

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Total Diversity Level \* year

#### Estimates

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	3301.147	1154.009	1031.322	5570.972
	2	3470.637	1123.473	1260.873	5680.401
	3	3782.454	1136.116	1547.822	6017.086
	4	3530.391	1136.701	1294.609	5766.174
	5	4335.085	1511.432	1362.243	7307.927
	6	4803.169	1858.055	1148.553	8457.785
	7	5951.644	2485.988	1061.943	10841.345
	8	6228.889	3418.841	-495.645	12953.423
	9	6790.012	4675.847	-2406.931	15986.956
	10	7488.969	4452.957	-1269.571	16247.510
	11	7474.116	3893.604	-184.231	15132.462
	12	5956.141	2826.512	396.663	11515.619
Medium	1	5674.010	1039.370	3629.669	7718.351
	2	5949.617	1011.868	3959.371	7939.864
	3	6156.549	1023.255	4143.905	8169.193
	4	5859.577	1023.782	3845.896	7873.257
	5	7533.489	1361.287	4855.968	10211.009
	6	9059.517	1673.476	5767.950	12351.085
	7	11500.567	2239.031	7096.608	15904.526
	8	14998.167	3079.214	8941.647	21054.687
	9	19062.218	4211.349	10778.897	27345.538
	10	19239.015	4010.601	11350.546	27127.484
	11	17281.464	3506.814	10383.895	24179.032
	12	13050.367	2545.727	8043.166	18057.568
High	1	17024.176	1332.535	14403.208	19645.144
	2	17075.422	1297.275	14523.806	19627.038

3	17632.628	1311.874	15052.297	20212.958
4	17483.515	1312.550	14901.855	20065.174
5	23015.275	1745.251	19582.533	26448.017
6	26387.235	2145.497	22167.248	30607.222
7	35797.074	2870.572	30150.933	41443.214
8	44121.950	3947.738	36357.127	51886.773
9	49936.938	5399.203	39317.223	60556.654
10	48712.290	5141.832	38598.799	58825.782
11	41345.058	4495.947	32501.961	50188.155
12	31979.269	3263.775	25559.737	38398.802

#### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	10394991400.076	2	5197495700.038	33.645	.000	.164	1.000
	Error	52987131107.890	343	154481431.802				
2	Contrast	10144103398.678	2	5072051699.339	34.642	.000	.168	1.000
	Error	50220093868.288	343	146414267.838				
3	Contrast	10600870186.823	2	5300435093.412	35.400	.000	.171	1.000
	Error	51356761208.592	343	149728166.789				
4	Contrast	10797042932.139	2	5398521466.070	36.018	.000	.174	1.000
	Error	51409683360.314	343	149882458.777				
5	Contrast	19286762484.197	2	9643381242.099	36.391	.000	.175	1.000
	Error	90892772700.847	343	264993506.417				
6	Contrast	25252899552.269	2	12626449776.135	31.529	.000	.155	1.000
	Error	137362812870.715	343	400474673.093				
7	Contrast	48683159563.540	2	24341579781.770	33.954	.000	.165	1.000
	Error	245895325007.114	343	716895991.275				
8	Contrast	76066341203.072	2	38033170601.536	28.051	.000	.141	1.000
	Error	465061116233.200	343	1355863312.634				
9	Contrast	95796177255.503	2	47898088627.752	18.886	.000	.099	1.000

10	Error	869906707958.128	343	2536171160.228				
	Contrast	87420042525.690	2	43710021262.845	19.003	.000	.100	1.000
11	Error	788949383358.260	343	2300143974.806				
	Contrast	58894501446.082	2	29447250723.041	16.745	.000	.089	1.000
12	Error	603192173533.328	343	1758577765.404				
	Contrast	35048636363.730	2	17524318181.865	18.910	.000	.099	1.000
	Error	317873043894.323	343	926743568.206				

Each F tests the simple effects of Total Diversity Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	Low	Medium	-.2372.863	1553.070	.336	-6099.384	1353.658
		High	-.13723.029(*)	1762.778	.000	-17952.735	-9493.324
	Medium	Low	.2372.863	1553.070	.336	-1353.658	6099.384
		High	-.11350.166(*)	1689.952	.000	-15405.130	-7295.202
	High	Low	.13723.029(*)	1762.778	.000	9493.324	17952.735
		Medium	.11350.166(*)	1689.952	.000	7295.202	15405.130
2	Low	Medium	-.2478.980	1511.975	.276	-6106.895	1148.935
		High	-.13604.785(*)	1716.134	.000	-17722.570	-9487.000
	Medium	Low	.2478.980	1511.975	.276	-1148.935	6106.895
		High	-.11125.805(*)	1645.235	.000	-15073.472	-7178.137
	High	Low	.13604.785(*)	1716.134	.000	9487.000	17722.570
		Medium	.11125.805(*)	1645.235	.000	7178.137	15073.472
3	Low	Medium	-.2374.095	1528.990	.322	-6042.837	1294.648
		High	-.13850.174(*)	1735.446	.000	-18014.298	-9686.049
	Medium	Low	.2374.095	1528.990	.322	-1294.648	6042.837
		High	-.11476.079(*)	1663.750	.000	-15468.172	-7483.986

4	High	Low	13850.174(*)	1735.446	.000	9686.049	18014.298
		Medium	11476.079(*)	1663.750	.000	7483.986	15468.172
	Low	Medium	-2329.185	1529.778	.339	-5999.817	1341.447
		High	-13953.123(*)	1736.340	.000	-18119.393	-9786.853
5	Medium	Low	2329.185	1529.778	.339	-1341.447	5999.817
		High	-11623.938(*)	1664.607	.000	-15618.087	-7629.789
	High	Low	13953.123(*)	1736.340	.000	9786.853	18119.393
		Medium	11623.938(*)	1664.607	.000	7629.789	15618.087
	Low	Medium	-3198.403	2034.091	.311	-8079.114	1682.307
		High	-18680.190(*)	2308.751	.000	-24219.933	-13140.447
	Medium	Low	3198.403	2034.091	.311	-1682.307	8079.114
		High	-15481.786(*)	2213.369	.000	-20792.666	-10170.907
6	High	Low	18680.190(*)	2308.751	.000	13140.447	24219.933
		Medium	15481.786(*)	2213.369	.000	10170.907	20792.666
	Low	Medium	-4256.348	2500.578	.246	-10256.372	1743.676
		High	-21584.066(*)	2838.226	.000	-28394.260	-14773.871
	Medium	Low	4256.348	2500.578	.246	-1743.676	10256.372
		High	-17327.717(*)	2720.970	.000	-23856.563	-10798.872
	High	Low	21584.066(*)	2838.226	.000	14773.871	28394.260
		Medium	17327.717(*)	2720.970	.000	10798.872	23856.563
7	Low	Medium	-5548.923	3345.653	.266	-13576.667	2478.821
		High	-29845.429(*)	3797.410	.000	-38957.143	-20733.716
	Medium	Low	5548.923	3345.653	.266	-2478.821	13576.667
		High	-24296.507(*)	3640.528	.000	-33031.789	-15561.225
	High	Low	29845.429(*)	3797.410	.000	20733.716	38957.143
		Medium	24296.507(*)	3640.528	.000	15561.225	33031.789
	Low	Medium	-8769.277	4601.091	.163	-19809.388	2270.833
		High	-37893.061(*)	5222.367	.000	-50423.894	-25362.228
8	Medium	Low	8769.277	4601.091	.163	-2270.833	19809.388
		High	-29123.783(*)	5006.615	.000	-41136.931	-17110.636
	High	Low	37893.061(*)	5222.367	.000	25362.228	50423.894
		Medium	29123.783(*)	5006.615	.000	17110.636	41136.931
	Low	Medium	-12272.205	6292.774	.148	-27371.433	2827.022
		High	-43146.926(*)	7142.474	.000	-60284.970	-26008.882
	Medium	Low	12272.205	6292.774	.148	-2827.022	27371.433



10	High	High	-30874.721(*)	6847.398	.000	-47304.742	-14444.699
		Low	43146.926(*)	7142.474	.000	26008.882	60284.970
		Medium	30874.721(*)	6847.398	.000	14444.699	47304.742
	Low	Medium	-11750.046	5992.808	.145	-26129.518	2629.427
		High	-41223.321(*)	6802.004	.000	-57544.424	-24902.219
		Low	11750.046	5992.808	.145	-2629.427	26129.518
11	Medium	High	-29473.275(*)	6520.994	.000	-45120.105	-13826.445
		Low	41223.321(*)	6802.004	.000	24902.219	57544.424
		Medium	29473.275(*)	6520.994	.000	13826.445	45120.105
	Low	Medium	-9807.348	5240.029	.175	-22380.560	2765.864
		High	-33870.942(*)	5947.579	.000	-48141.888	-19599.996
		Low	9807.348	5240.029	.175	-2765.864	22380.560
12	Medium	High	-24063.594(*)	5701.867	.000	-37744.966	-10382.223
		Low	33870.942(*)	5947.579	.000	19599.996	48141.888
		Medium	24063.594(*)	5701.867	.000	10382.223	37744.966
	Low	Medium	-7094.226	3803.931	.177	-16221.587	2033.135
		High	-26023.128(*)	4317.568	.000	-36382.938	-15663.319
		Low	7094.226	3803.931	.177	-2033.135	16221.587
	High	High	-18928.902(*)	4139.197	.000	-28860.718	-8997.087
		Low	26023.128(*)	4317.568	.000	15663.319	36382.938
		Medium	18928.902(*)	4139.197	.000	8997.087	28860.718

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level 1	Low	116

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	2649898305.099	1	2649898305.099	17.101	.000	.129	.984
	Quadratic	39777323.558	1	39777323.558	4.183	.043	.035	.527
	Cubic	367708924.337	1	367708924.337	9.321	.003	.075	.857

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level 2	Medium	143

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	33407084404.126	1	33407084404.126	21.561	.000	.132	.996
	Quadratic	307350798.276	1	307350798.276	2.579	.110	.018	.358
	Cubic	8534365693.133	1	8534365693.133	17.934	.000	.112	.988

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level 3	High	87

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	106170290001.704	1	106170290001.704	22.302	.000	.206	.997
	Quadratic	7947640411.677	1	7947640411.677	15.576	.000	.153	.974
	Cubic	38543112920.713	1	38543112920.713	24.297	.000	.220	.998

a. Computed using alpha = .05

## General Linear Model with Level of Employee Relations for Market Capitalization

### Between-Subjects Factors

		Value Label	N
Total Emp Relations Level	1	Low	154
	2	Medium	110
	3	High	82

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	152690153347.622	11	13880923031.602	46.198	.000	.119	1.000
	Greenhouse-Geisser	152690153347.622	1.452	105132385252.910	46.198	.000	.119	1.000
	Huynh-Feldt	152690153347.622	1.465	104194221236.775	46.198	.000	.119	1.000
	Lower-bound	152690153347.622	1.000	152690153347.622	46.198	.000	.119	1.000
year * emptot_lvl	Sphericity Assumed	27385520763.609	22	1244796398.346	4.143	.000	.024	1.000

Error(year)	Greenhouse-Geisser	27385520763.609	2.905	9427933157.931	4.143	.007	.024	.842
	Huynh-Feldt	27385520763.609	2.931	9343801635.432	4.143	.007	.024	.845
	Lower-bound	27385520763.609	2.000	13692760381.805	4.143	.017	.024	.730
	Sphericity Assumed	1133656647427.862	3773	300465583.734				
	Greenhouse-Geisser	1133656647427.862	498.160	2275688974.893				
	Huynh-Feldt	1133656647427.862	502.645	2255381535.820				
	Lower-bound	1133656647427.862	343.000	3305121421.073				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	110155302047.351	1	110155302047.351	55.989	.000	.140	1.000
	Quadratic	4015562306.721	1	4015562306.721	20.848	.000	.057	.995
	Cubic	33054660682.959	1	33054660682.959	51.248	.000	.130	1.000
year * emptot_lvi	Linear	18104794915.974	2	9052397457.987	4.601	.011	.026	.777
	Quadratic	568190303.718	2	284095151.859	1.475	.230	.009	.314
	Cubic	6206175067.316	2	3103087533.658	4.811	.009	.027	.796
Error(year)	Linear	67483948522.578	343	1967462056.052				
	Quadratic	66066985920.475	343	192615119.302				
	Cubic	22123232365.4188	343	644992197.243				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	10220586307 8.773	2	51102931539. 387	5.941	.003	.033	.877
Error	29502445021 42.546	343	8601295924.6 14				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8351.857	743.234	6889.988	9813.727
2	8517.810	725.472	7090.877	9944.744
3	8873.122	734.210	7429.001	10317.243
4	8655.901	734.910	7210.404	10101.398
5	11214.814	978.438	9290.321	13139.307
6	12965.858	1191.504	10622.284	15309.432
7	17013.558	1604.859	13856.953	20170.162
8	21194.764	2170.825	16924.960	25464.569
9	25120.062	2898.515	19418.961	30821.163
10	24786.689	2768.258	19341.791	30231.586
11	21880.794	2404.152	17152.058	26609.531
12	16809.426	1755.850	13355.837	20263.015

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	2	-165.953	177.385	1.000	-767.512	435.607
	3	-521.265	264.646	.965	-1418.752	376.223
	4	-304.044	270.296	1.000	-1220.690	612.603
	5	-2862.957(*)	403.797	.000	-4232.343	-1493.571
	6	-4614.001(*)	631.628	.000	-6756.025	-2471.977
	7	-8661.700(*)	993.094	.000	-12029.555	-5293.845
	8	-12842.907(*)	1558.354	.000	-18127.711	-7558.103
	9	-16768.204(*)	2338.826	.000	-24699.802	-8836.607
	10	-16434.831(*)	2210.712	.000	-23931.960	-8937.703
	11	-13528.937(*)	1855.960	.000	-19823.004	-7234.869
	12	-8457.569(*)	1206.653	.000	-12549.658	-4365.479
2	1	165.953	177.385	1.000	-435.607	767.512
	3	-355.312	153.876	.762	-877.146	166.523
	4	-138.091	188.175	1.000	-776.243	500.062
	5	-2697.004(*)	363.317	.000	-3929.111	-1464.897
	6	-4448.048(*)	627.394	.000	-6575.711	-2320.385
	7	-8495.747(*)	996.681	.000	-11875.765	-5115.729
	8	-12676.954(*)	1568.867	.000	-17997.411	-7356.497
	9	-16602.251(*)	2318.889	.000	-24466.237	-8738.266
	10	-16268.878(*)	2219.544	.000	-23795.960	-8741.797
	11	-13362.984(*)	1870.790	.000	-19707.343	-7018.625
	12	-8291.616(*)	1229.130	.000	-12459.930	-4123.302
3	1	521.265	264.646	.965	-376.223	1418.752
	2	355.312	153.876	.762	-166.523	877.146
	4	217.221	119.523	.992	-188.115	622.557

4	5	-2341.692(*)	319.311	.000	-3424.563	-1258.821
	6	-4092.736(*)	582.068	.000	-6066.690	-2118.783
	7	-8140.436(*)	968.215	.000	-11423.917	-4856.955
	8	-12321.643(*)	1554.837	.000	-17594.519	-7048.766
	9	-16246.940(*)	2300.255	.000	-24047.733	-8446.147
	10	-15913.567(*)	2210.711	.000	-23410.691	-8416.443
	11	-13007.672(*)	1866.603	.000	-19337.833	-6677.512
	12	-7936.304(*)	1242.885	.000	-12151.267	-3721.342
	1	304.044	270.296	1.000	-612.603	1220.690
	2	138.091	188.175	1.000	-500.062	776.243
	3	-217.221	119.523	.992	-622.557	188.115
	5	-2558.913(*)	285.620	.000	-3527.529	-1590.297
5	6	-4309.957(*)	557.058	.000	-6199.092	-2420.823
	7	-8357.657(*)	954.100	.000	-11593.271	-5122.042
	8	-12538.863(*)	1547.254	.000	-17786.023	-7291.704
	9	-16464.161(*)	2293.428	.000	-24241.803	-8686.519
	10	-16130.787(*)	2205.997	.000	-23611.927	-8649.648
	11	-13224.893(*)	1862.909	.000	-19542.526	-6907.261
	12	-8153.525(*)	1240.146	.000	-12359.199	-3947.850
	1	2862.957(*)	403.797	.000	1493.571	4232.343
	2	2697.004(*)	363.317	.000	1464.897	3929.111
	3	2341.692(*)	319.311	.000	1258.821	3424.563
	4	2558.913(*)	285.620	.000	1590.297	3527.529
	6	-1751.044(*)	355.024	.000	-2955.029	-547.059
6	7	-5798.744(*)	722.929	.000	-8250.392	-3347.095
	8	-9979.950(*)	1328.093	.000	-14483.878	-5476.023
	9	-13905.248(*)	2102.020	.000	-21033.772	-6776.723
	10	-13571.874(*)	2005.973	.000	-20374.677	-6769.072
	11	-10665.980(*)	1692.604	.000	-16406.064	-4925.896
	12	-5594.612(*)	1100.864	.000	-9327.941	-1861.283
	1	4614.001(*)	631.628	.000	2471.977	6756.025
	2	4448.048(*)	627.394	.000	2320.385	6575.711
	3	4092.736(*)	582.068	.000	2118.783	6066.690

7	4	4309.957(*)	557.058	.000	2420.823	6199.092
	5	1751.044(*)	355.024	.000	547.059	2955.029
	7	-4047.699(*)	495.744	.000	-5728.902	-2366.496
	8	-8228.906(*)	1121.648	.000	-12032.720	-4425.092
	9	-12154.203(*)	1932.263	.000	-18707.034	-5601.373
	10	-11820.830(*)	1829.376	.000	-18024.743	-5616.917
	11	-8914.936(*)	1517.546	.000	-14061.349	-3768.523
	12	-3843.568(*)	985.203	.008	-7184.659	-502.476
	1	8661.700(*)	993.094	.000	5293.845	12029.555
	2	8495.747(*)	996.681	.000	5115.729	11875.765
	3	8140.436(*)	968.215	.000	4856.955	11423.917
	4	8357.657(*)	954.100	.000	5122.042	11593.271
8	5	5798.744(*)	722.929	.000	3347.095	8250.392
	6	4047.699(*)	495.744	.000	2366.496	5728.902
	8	-4181.207(*)	721.101	.000	-6626.658	-1735.756
	9	-8106.504(*)	1608.993	.000	-13563.039	-2649.969
	10	-7773.131(*)	1478.966	.000	-12788.710	-2757.551
	11	-4867.237(*)	1217.828	.005	-8997.225	-737.249
	12	204.132	849.266	1.000	-2675.962	3084.225
	1	12842.907(*)	1558.354	.000	7558.103	18127.711
	2	12676.954(*)	1568.867	.000	7356.497	17997.411
	3	12321.643(*)	1554.837	.000	7048.766	17594.519
	4	12538.863(*)	1547.254	.000	7291.704	17786.023
	5	9979.950(*)	1328.093	.000	5476.023	14483.878
9	6	8228.906(*)	1121.648	.000	4425.092	12032.720
	7	4181.207(*)	721.101	.000	1735.756	6626.658
	9	-3925.297(*)	1106.792	.029	-7678.733	-171.862
	10	-3591.924(*)	1025.474	.034	-7069.588	-114.261
	11	-686.030	838.568	1.000	-3529.842	2157.782
	12	4385.338(*)	963.045	.000	1119.389	7651.288
	1	16768.204(*)	2338.826	.000	8836.607	24699.802
	2	16602.251(*)	2318.889	.000	8738.266	24466.237
	3	16246.940(*)	2300.255	.000	8446.147	24047.733



10	4	16464.161(*)	2293.428	.000	8686.519	24241.803
	5	13905.248(*)	2102.020	.000	6776.723	21033.772
	6	12154.203(*)	1932.263	.000	5601.373	18707.034
	7	8106.504(*)	1608.993	.000	2649.969	13563.039
	8	3925.297(*)	1106.792	.029	171.862	7678.733
	10	333.373	964.020	1.000	-2935.883	3602.630
	11	3239.268	1126.449	.247	-580.827	7059.362
	12	8310.636(*)	1609.315	.000	2853.010	13768.262
	1	16434.831(*)	2210.712	.000	8937.703	23931.960
	2	16268.878(*)	2219.544	.000	8741.797	23795.960
11	3	15913.567(*)	2210.711	.000	8416.443	23410.691
	4	16130.787(*)	2205.997	.000	8649.648	23611.927
	5	13571.874(*)	2005.973	.000	6769.072	20374.677
	6	11820.830(*)	1829.376	.000	5616.917	18024.743
	7	7773.131(*)	1478.966	.000	2757.551	12788.710
	8	3591.924(*)	1025.474	.034	114.261	7069.588
	9	-333.373	964.020	1.000	-3602.630	2935.883
	11	2905.894(*)	720.932	.005	461.015	5350.773
	12	7977.262(*)	1271.927	.000	3663.809	12290.716
	1	13528.937(*)	1855.960	.000	7234.869	19823.004
12	2	13362.984(*)	1870.790	.000	7018.625	19707.343
	3	13007.672(*)	1866.603	.000	6677.512	19337.833
	4	13224.893(*)	1862.909	.000	6907.261	19542.526
	5	10665.980(*)	1692.604	.000	4925.896	16406.064
	6	8914.936(*)	1517.546	.000	3768.523	14061.349
	7	4867.237(*)	1217.828	.005	737.249	8997.225
	8	686.030	838.568	1.000	-2157.782	3529.842
	9	-3239.268	1126.449	.247	-7059.362	580.827
	10	-2905.894(*)	720.932	.005	-5350.773	-461.015
	12	5071.368(*)	828.078	.000	2263.129	7879.607
12	1	8457.569(*)	1206.653	.000	4365.479	12549.658
	2	8291.616(*)	1229.130	.000	4123.302	12459.930
	3	7936.304(*)	1242.885	.000	3721.342	12151.267

4	8153.525(*)	1240.146	.000	3947.850	12359.199
5	5594.612(*)	1100.864	.000	1861.283	9327.941
6	3843.568(*)	985.203	.008	502.476	7184.659
7	-204.132	849.266	1.000	-3084.225	2675.962
8	-4385.338(*)	963.045	.000	-7651.288	-1119.389
9	-8310.636(*)	1609.315	.000	-13768.262	-2853.010
10	-7977.262(*)	1271.927	.000	-12290.716	-3663.809
11	-5071.368(*)	828.078	.000	-7879.607	-2263.129

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp Relations Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	8899.196	2157.401	4655.794	13142.598
Medium	16723.545	2552.672	11702.684	21744.406
High	20723.423	2956.544	14908.183	26538.663

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	-7824.349	3342.232	.058	-15843.884	195.186
	High	-11824.227(*)	3659.991	.004	-20606.211	-3042.244
Medium	Low	7824.349	3342.232	.058	-195.186	15843.884

High	High	-3999.878	3906.058	.667	-13372.288	5372.531
	Low	11824.227(*)	3659.991	.004	3042.244	20606.211
	Medium	3999.878	3906.058	.667	-5372.531	13372.288

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	8517155256.565	2	4258577628.283	5.941	.003	.033	.877
Error	245853708511.879	343	716774660.385				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	5243.002	1078.013	3122.654	7363.349
	2	5514.118	1052.250	3444.444	7583.793
	3	5708.356	1064.925	3613.751	7802.960
	4	5493.513	1065.939	3396.913	7590.112
	5	7028.004	1419.160	4236.651	9819.357
	6	8352.501	1728.199	4953.298	11751.704
	7	10615.409	2327.744	6036.958	15193.860
	8	11872.105	3148.641	5679.030	18065.181
	9	12275.878	4204.109	4006.799	20544.957
	10	13419.795	4015.179	5522.323	21317.268
	11	11705.102	3487.067	4846.375	18563.829

Medium	12	9562.569	2546.747	4553.361	14571.776
	1	8691.667	1275.522	6182.838	11200.496
	2	8805.466	1245.039	6356.594	11254.337
	3	9264.294	1260.036	6785.924	11742.664
	4	8700.931	1261.236	6220.200	11181.661
	5	11343.827	1679.173	8041.054	14646.600
	6	12763.815	2044.833	8741.824	16785.806
	7	17845.449	2754.224	12428.153	23262.744
	8	22756.965	3725.522	15429.220	30084.711
	9	28380.491	4974.368	18596.384	38164.597
	10	28361.364	4750.824	19016.949	37705.780
	11	25350.858	4125.953	17235.503	33466.213
High	12	18417.414	3013.351	12490.440	24344.387
	1	11120.904	1477.329	8215.139	14026.669
	2	11233.847	1442.023	8397.525	14070.169
	3	11646.716	1459.393	8776.230	14517.203
	4	11773.260	1460.783	8900.039	14646.480
	5	15272.611	1944.845	11447.288	19097.935
	6	17781.259	2368.358	13122.926	22439.592
	7	22579.815	3189.986	16305.419	28854.212
	8	28955.223	4314.958	20468.113	37442.332
	9	34703.817	5761.391	23371.712	46035.921
	10	32578.906	5502.478	21756.058	43401.754
	11	28586.423	4778.743	19187.092	37985.754
	12	22448.296	3490.111	15583.582	29313.010

### ***General Linear Model with Level of Environment for Market Capitalization***

#### **Between-Subjects Factors**

	Value Label	N
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Total Environment Level	1	Low	87
	2	Medium	173
	3	High	86

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	13782637729 6.243	11	12529670663. 295	41.482	.000	.108	1.000
	Greenhouse-Geisser	13782637729 6.243	1.448	95164315277. 261	41.482	.000	.108	1.000
	Huynh-Feldt	13782637729 6.243	1.461	94317281391. 153	41.482	.000	.108	1.000
	Lower-bound	13782637729 6.243	1.000	13782637729 6.243	41.482	.000	.108	1.000
year * envtot_lvl	Sphericity Assumed	21402553002 .650	22	972843318.30 3	3.221	.000	.018	1.000
	Greenhouse-Geisser	21402553002 .650	2.897	7388858873.1 63	3.221	.024	.018	.730
	Huynh-Feldt	21402553002 .650	2.923	7323092479.2 48	3.221	.024	.018	.733
	Lower-bound	21402553002 .650	2.000	10701276501. 325	3.221	.041	.018	.613
Error(year)	Sphericity Assumed	11396396151 88.822	3773	302051315.97 9				
	Greenhouse-Geisser	11396396151 88.822	496.767	2294115099.7 65				
	Huynh-Feldt	11396396151 88.822	501.228	2273695752.2 13				
	Lower-bound	11396396151 88.822	343.000	3322564475.7 70				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	98959198804.688	1	98959198804.688	49.973	.000	.127	1.000
	Quadratic	4335982254.584	1	4335982254.584	22.654	.000	.062	.997
	Cubic	30230099479.323	1	30230099479.323	46.741	.000	.120	1.000
year * envtot_lvl	Linear	13722336177.596	2	6861168088.798	3.465	.032	.020	.647
	Quadratic	984744268.969	2	492372134.485	2.572	.078	.015	.512
	Cubic	5599897328.730	2	2799948664.365	4.329	.014	.025	.750
Error(year)	Linear	67922194396.3956	343	1980238903.686				
	Quadratic	65650431955.224	343	191400676.254				
	Cubic	22183860139.2774	343	646759770.825				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	17554536996.8680	2	87772684984.340	10.465	.000	.058	.988
Error	28769049952.52638	343	8387478120.271				

a. Computed using alpha = .05

### Estimated Marginal Means

## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8742.293	731.272	7303.952	10180.635
2	8884.144	716.824	7474.220	10294.069
3	9222.659	723.945	7798.729	10646.588
4	9025.083	725.541	7598.013	10452.153
5	11640.641	972.703	9727.427	13553.855
6	13449.849	1191.006	11107.255	15792.443
7	17507.423	1609.951	14340.805	20674.042
8	21359.549	2195.369	17041.469	25677.629
9	24883.480	2954.845	19071.583	30695.376
10	24710.430	2807.762	19187.830	30233.030
11	21833.681	2437.831	17038.701	26628.661
12	16823.176	1781.158	13319.809	20326.543

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound			Upper Bound	Lower Bound
1	2	-141.851	180.213	1.000	-753.002	469.300
	3	-480.366	269.886	.995	-1395.623	434.892
	4	-282.789	275.825	1.000	-1218.189	652.610
	5	-2898.348(*)	411.952	.000	-4295.388	-1501.307

2	6	-4707.555(*)	643.698	.000	-6890.510	-2524.601
	7	-8765.130(*)	1009.531	.000	-12188.726	-5341.534
	8	-12617.256(*)	1591.646	.000	-18014.962	-7219.550
	9	-16141.186(*)	2400.460	.000	-24281.801	-8000.572
	10	-15968.137(*)	2257.860	.000	-23625.156	-8311.117
	11	-13091.387(*)	1897.633	.000	-19526.778	-6655.996
	12	-8080.883(*)	1237.152	.000	-12276.403	-3885.362
	1	141.851	180.213	1.000	-469.300	753.002
	3	-338.514	156.568	.877	-869.480	192.452
	4	-140.938	192.202	1.000	-792.748	510.871
	5	-2756.496(*)	368.993	.000	-4007.852	-1505.141
	6	-4565.704(*)	637.904	.000	-6729.010	-2402.399
3	7	-8623.279(*)	1011.187	.000	-12052.492	-5194.066
	8	-12475.405(*)	1600.414	.000	-17902.846	-7047.963
	9	-15999.335(*)	2378.796	.000	-24066.482	-7932.188
	10	-15826.286(*)	2265.060	.000	-23507.724	-8144.848
	11	-12949.536(*)	1911.007	.000	-19430.284	-6468.788
	12	-7939.031(*)	1258.846	.000	-12208.123	-3669.940
	1	480.366	269.886	.995	-434.892	1395.623
	2	338.514	156.568	.877	-192.452	869.480
	4	197.576	122.232	.999	-216.945	612.097
	5	-2417.982(*)	324.537	.000	-3518.577	-1317.387
	6	-4227.190(*)	592.050	.000	-6234.994	-2219.386
	7	-8284.765(*)	982.784	.000	-11617.652	-4951.877
4	8	-12136.890(*)	1586.843	.000	-17518.308	-6755.473
	9	-15660.821(*)	2360.260	.000	-23665.109	-7656.533
	10	-15487.771(*)	2256.788	.000	-23141.156	-7834.387
	11	-12611.022(*)	1907.413	.000	-19079.579	-6142.464
	12	-7600.517(*)	1273.134	.000	-11918.062	-3282.971
	1	282.789	275.825	1.000	-652.610	1218.189
	2	140.938	192.202	1.000	-510.871	792.748
	3	-197.576	122.232	.999	-612.097	216.945
	5	-2615.558(*)	289.516	.000	-3597.385	-1633.732



5	6	-4424.766(*)	565.905	.000	-6343.906	-2505.626
	7	-8482.341(*)	968.007	.000	-11765.118	-5199.563
	8	-12334.467(*)	1578.483	.000	-17687.534	-6981.399
	9	-15858.397(*)	2352.928	.000	-23837.818	-7878.976
	10	-15685.347(*)	2251.556	.000	-23320.991	-8049.704
	11	-12808.598(*)	1903.329	.000	-19263.307	-6353.889
	12	-7798.093(*)	1269.943	.000	-12104.816	-3491.370
	1	2898.348(*)	411.952	.000	1501.307	4295.388
	2	2756.496(*)	368.993	.000	1505.141	4007.852
	3	2417.982(*)	324.537	.000	1317.387	3518.577
	4	2615.558(*)	289.516	.000	1633.732	3597.385
	6	-1809.208(*)	361.789	.000	-3036.133	-582.282
6	7	-5866.783(*)	734.290	.000	-8356.961	-3376.605
	8	-9718.908(*)	1356.292	.000	-14318.465	-5119.352
	9	-13242.839(*)	2158.322	.000	-20562.298	-5923.379
	10	-13069.789(*)	2048.570	.000	-20017.049	-6122.530
	11	-10193.040(*)	1730.495	.000	-16061.620	-4324.459
	12	-5182.535(*)	1127.259	.000	-9005.378	-1359.692
	1	4707.555(*)	643.698	.000	2524.601	6890.510
	2	4565.704(*)	637.904	.000	2402.399	6729.010
	3	4227.190(*)	592.050	.000	2219.386	6234.994
	4	4424.766(*)	565.905	.000	2505.626	6343.906
	5	1809.208(*)	361.789	.000	582.282	3036.133
	7	-4057.575(*)	503.901	.000	-5766.441	-2348.709
7	8	-7909.701(*)	1146.829	.000	-11798.911	-4020.490
	9	-11433.631(*)	1986.460	.000	-18170.260	-4697.002
	10	-11260.581(*)	1869.530	.000	-17600.668	-4920.494
	11	-8383.832(*)	1553.160	.000	-13651.021	-3116.643
	12	-3373.327	1009.069	.059	-6795.354	48.700
	1	8765.130(*)	1009.531	.000	5341.534	12188.726
	2	8623.279(*)	1011.187	.000	5194.066	12052.492
	3	8284.765(*)	982.784	.000	4951.877	11617.652
	4	8482.341(*)	968.007	.000	5199.563	11765.118

8	5	5866.783(*)	734.290	.000	3376.605	8356.961
	6	4057.575(*)	503.901	.000	2348.709	5766.441
	8	-3852.126(*)	739.834	.000	-6361.106	-1343.146
	9	-7376.056(*)	1656.205	.001	-12992.699	-1759.414
	10	-7203.007(*)	1512.516	.000	-12332.363	-2073.651
	11	-4326.257(*)	1246.784	.038	-8554.441	-98.073
	12	684.248	864.938	1.000	-2248.993	3617.488
	1	12617.256(*)	1591.646	.000	7219.550	18014.962
	2	12475.405(*)	1600.414	.000	7047.963	17902.846
	3	12136.890(*)	1586.843	.000	6755.473	17518.308
	4	12334.467(*)	1578.483	.000	6981.399	17687.534
	5	9718.908(*)	1356.292	.000	5119.352	14318.465
9	6	7909.701(*)	1146.829	.000	4020.490	11798.911
	7	3852.126(*)	739.834	.000	1343.146	6361.106
	9	-3523.930	1137.105	.130	-7380.164	332.304
	10	-3350.881	1047.006	.094	-6901.564	199.802
	11	-474.131	857.158	1.000	-3380.989	2432.726
	12	4536.373(*)	977.704	.000	1220.711	7852.036
	1	16141.186(*)	2400.460	.000	8000.572	24281.801
	2	15999.335(*)	2378.796	.000	7932.188	24066.482
	3	15660.821(*)	2360.260	.000	7656.533	23665.109
	4	15858.397(*)	2352.928	.000	7878.976	23837.818
	5	13242.839(*)	2158.322	.000	5923.379	20562.298
	6	11433.631(*)	1986.460	.000	4697.002	18170.260
10	7	7376.056(*)	1656.205	.001	1759.414	12992.699
	8	3523.930	1137.105	.130	-332.304	7380.164
	10	173.049	984.895	1.000	-3166.999	3513.098
	11	3049.799	1153.846	.434	-863.208	6962.806
	12	8060.304(*)	1647.218	.000	2474.136	13646.471
	1	15968.137(*)	2257.860	.000	8311.117	23625.156
	2	15826.286(*)	2265.060	.000	8144.848	23507.724
	3	15487.771(*)	2256.788	.000	7834.387	23141.156
	4	15685.347(*)	2251.556	.000	8049.704	23320.991

11	5	13069.789(*)	2048.570	.000	6122.530	20017.049
	6	11260.581(*)	1869.530	.000	4920.494	17600.668
	7	7203.007(*)	1512.516	.000	2073.651	12332.363
	8	3350.881	1047.006	.094	-199.802	6901.564
	9	-173.049	984.895	1.000	-3513.098	3166.999
	11	2876.750(*)	734.694	.007	385.201	5368.298
	12	7887.254(*)	1292.684	.000	3503.409	12271.100
	1	13091.387(*)	1897.633	.000	6655.996	19526.778
	2	12949.536(*)	1911.007	.000	6468.788	19430.284
	3	12611.022(*)	1907.413	.000	6142.464	19079.579
	4	12808.598(*)	1903.329	.000	6353.889	19263.307
12	5	10193.040(*)	1730.495	.000	4324.459	16061.620
	6	8383.832(*)	1553.160	.000	3116.643	13651.021
	7	4326.257(*)	1246.784	.038	98.073	8554.441
	8	474.131	857.158	1.000	-2432.726	3380.989
	9	-3049.799	1153.846	.434	-6962.806	863.208
	10	-2876.750(*)	734.694	.007	-5368.298	-385.201
	12	5010.505(*)	841.654	.000	2156.226	7864.784
	1	8080.883(*)	1237.152	.000	3885.362	12276.403
	2	7939.031(*)	1258.846	.000	3669.940	12208.123
	3	7600.517(*)	1273.134	.000	3282.971	11918.062
	4	7798.093(*)	1269.943	.000	3491.370	12104.816
	5	5182.535(*)	1127.259	.000	1359.692	9005.378
	6	3373.327	1009.069	.059	-48.700	6795.354
	7	-684.248	864.938	1.000	-3617.488	2248.993
	8	-4536.373(*)	977.704	.000	-7852.036	-1220.711
	9	-8060.304(*)	1647.218	.000	-13646.471	-2474.136
	10	-7887.254(*)	1292.684	.000	-12271.100	-3503.409
	11	-5010.505(*)	841.654	.000	-7864.784	-2156.226

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	25277.772	2834.428	19702.723	30852.821
Medium	9659.049	2010.028	5705.517	13612.581
High	12083.782	2850.860	6476.413	17691.150

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	15618.723(*)	3474.794	.000	7281.111	23956.334
	High	13193.990(*)	4020.122	.003	3547.888	22840.092
Medium	Low	-15618.723(*)	3474.794	.000	-23956.334	-7281.111
	High	-2424.733	3488.210	.865	-10794.536	5945.071
High	Low	-13193.990(*)	4020.122	.003	-22840.092	-3547.888
	Medium	2424.733	3488.210	.865	-5945.071	10794.536

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	146287808 30.724	2	7314390415.3 62	10.465	.000	.058	.988
Error	239742082 937.720	343	698956510.02 3				

The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

Total Environment Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	14942.529	1383.479	12221.357	17663.700
	2	14625.085	1356.146	11957.675	17292.496
	3	15303.739	1369.617	12609.834	17997.645
	4	14988.822	1372.637	12288.976	17688.669
	5	18941.700	1840.239	15322.126	22561.274
	6	21381.118	2253.241	16949.209	25813.028
	7	27790.198	3045.835	21799.331	33781.064
	8	34279.691	4153.377	26110.397	42448.986
	9	39466.464	5590.215	28471.046	50461.882
	10	39885.536	5311.953	29437.433	50333.639
	11	35361.615	4612.087	26290.083	44433.148
	12	26366.762	3369.739	19738.807	32994.716
Medium	1	4654.776	981.091	2725.064	6584.488
	2	4968.006	961.708	3076.419	6859.593
	3	5269.426	971.261	3359.050	7179.803
	4	4885.637	973.402	2971.048	6800.227
	5	6439.778	1305.001	3872.966	9006.589

High	6	7550.873	1597.880	4407.995	10693.750
	7	10397.836	2159.947	6149.428	14646.244
	8	13343.164	2945.357	7549.929	19136.399
	9	16076.413	3964.287	8279.040	23873.786
	10	16582.670	3766.958	9173.424	23991.916
	11	14561.098	3270.650	8128.043	20994.153
	12	11178.910	2389.642	6478.713	15879.108
	1	6629.576	1391.500	3892.629	9366.523
	2	7059.342	1364.008	4376.468	9742.215
	3	7094.811	1377.557	4385.288	9804.334
	4	7200.789	1380.595	4485.291	9916.287
	5	9540.445	1850.907	5899.888	13181.002
	6	11417.555	2266.304	6959.953	15875.157
	7	14334.237	3063.493	8308.640	20359.833
	8	16455.793	4177.454	8239.140	24672.446
	9	19107.562	5622.622	8048.402	30166.722
	10	17663.085	5342.747	7154.413	28171.757
	11	15578.329	4638.824	6454.207	24702.451
	12	12923.856	3389.274	6257.478	19590.234

### ***General Linear Model with Level of Product for Market Capitalization***

#### **Between-Subjects Factors**

		Value Label	N
Total Product	1	Low	85
Level	2	Medium	173

3	High	88
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### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	164405645010.191	11	14945967728.200	50.230	.000	.128	1.000
	Greenhouse-Geisser	164405645010.191	1.450	113402314061.931	50.230	.000	.128	1.000
	Huynh-Feldt	164405645010.191	1.463	112392016410.892	50.230	.000	.128	1.000
	Lower-bound	164405645010.191	1.000	164405645010.191	50.230	.000	.128	1.000
year * protot_lvl	Sphericity Assumed	38375040138.472	22	1744320006.295	5.862	.000	.033	1.000
	Greenhouse-Geisser	38375040138.472	2.900	13235002829.898	5.862	.001	.033	.948
	Huynh-Feldt	38375040138.472	2.926	13117092605.745	5.862	.001	.033	.950
	Lower-bound	38375040138.472	2.000	19187520069.236	5.862	.003	.033	.872
Error(year)	Sphericity Assumed	1122667128053.001	3773	297552909.635				
	Greenhouse-Geisser	1122667128053.001	497.266	2257678400.096				
	Huynh-Feldt	1122667128053.001	501.736	2237564814.202				
	Lower-bound	1122667128053.001	343.000	3273082005.986				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	118613351224.397	1	118613351224.397	60.946	.000	.151	1.000
	Quadratic	4542110179.980	1	4542110179.980	23.879	.000	.065	.998
	Cubic	35788967900.503	1	35788967900.503	56.032	.000	.140	1.000
year * protot_lvl	Linear	25396588239.264	2	12698294119.632	6.525	.002	.037	.907
	Quadratic	1393070784.307	2	696535392.154	3.662	.027	.021	.672

Error(year)	Cubic	8356428586.490	2	4178214293.245	6.542	.002	.037	.907
	Linear	667547691902.288	343	1946203183.389				
	Quadratic	65242105439.886	343	190210219.941				
	Cubic	219082070135.015	343	638723236.546				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_lvl	177866283045.689	2	88933141522.845	10.612	.000	.058	.989
Error	2874584082175.630	343	8380711609.842				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8787.139	745.791	7320.240	10254.038
2	8969.865	727.581	7538.782	10400.947
3	9321.794	736.288	7873.587	10770.001
4	9089.163	738.840	7635.936	10542.391
5	11806.797	982.886	9873.554	13740.040
6	13714.163	1196.728	11360.314	16068.012



7	18127.826	1607.423	14966.179	21289.472
8	22595.984	2181.330	18305.518	26886.451
9	26342.447	2942.750	20554.339	32130.556
10	26182.814	2797.270	20680.851	31684.777
11	23144.626	2427.833	18369.310	27919.942
12	17712.709	1772.058	14227.240	21198.179

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	2	-182.726	180.701	1.000	-795.534	430.082
	3	-534.655	269.931	.962	-1450.065	380.755
	4	-302.024	275.027	1.000	-1234.716	630.667
	5	-3019.658(*)	409.701	.000	-4409.065	-1630.251
	6	-4927.024(*)	639.097	.000	-7094.377	-2759.672
	7	-9340.687(*)	997.461	.000	-12723.349	-5958.024
	8	-13808.846(*)	1569.293	.000	-19130.746	-8486.945
	9	-17555.308(*)	2379.861	.000	-25626.067	-9484.550
	10	-17395.675(*)	2241.901	.000	-24998.575	-9792.775
	11	-14357.487(*)	1882.483	.000	-20741.502	-7973.472
	12	-8925.570(*)	1224.827	.000	-13079.294	-4771.847
	12	-8925.570(*)	1224.827	.000	-13079.294	-4771.847
2	1	182.726	180.701	1.000	-430.082	795.534
	3	-351.929	156.948	.819	-884.182	180.323
	4	-119.299	192.005	1.000	-770.439	531.841
	5	-2836.932(*)	368.661	.000	-4087.162	-1586.702
	6	-4744.299(*)	635.157	.000	-6898.291	-2590.306
	7	-9157.961(*)	1001.375	.000	-12553.899	-5762.023
	8	-13626.120(*)	1580.667	.000	-18986.592	-8265.648
	9	-17372.583(*)	2360.545	.000	-25377.835	-9367.330

3	10	-17212.949(*)	2251.104	.000	-24847.059	-9578.839
	11	-14174.762(*)	1897.840	.000	-20610.856	-7738.667
	12	-8742.845(*)	1248.041	.000	-12975.292	-4510.397
	1	534.655	269.931	.962	-380.755	1450.065
	2	351.929	156.948	.819	-180.323	884.182
	4	232.631	121.257	.978	-178.584	643.845
	5	-2485.003(*)	323.466	.000	-3581.965	-1388.041
	6	-4392.369(*)	588.650	.000	-6388.641	-2396.098
	7	-8806.032(*)	972.069	.000	-12102.582	-5509.481
	8	-13274.190(*)	1566.078	.000	-18585.188	-7963.192
	9	-17020.653(*)	2340.819	.000	-24959.010	-9082.296
	10	-16861.020(*)	2241.994	.000	-24464.235	-9257.805
4	11	-13822.832(*)	1893.480	.000	-20244.140	-7401.524
	12	-8390.915(*)	1262.094	.000	-12671.022	-4110.809
	1	302.024	275.027	1.000	-630.667	1234.716
	2	119.299	192.005	1.000	-531.841	770.439
	3	-232.631	121.257	.978	-643.845	178.584
	5	-2717.634(*)	287.644	.000	-3693.113	-1742.154
	6	-4625.000(*)	561.969	.000	-6530.789	-2719.210
	7	-9038.662(*)	956.596	.000	-12282.742	-5794.583
	8	-13506.821(*)	1557.854	.000	-18789.930	-8223.712
	9	-17253.284(*)	2334.563	.000	-25170.423	-9336.144
	10	-17093.651(*)	2236.531	.000	-24678.338	-9508.964
	11	-14055.463(*)	1889.156	.000	-20462.106	-7648.819
5	12	-8623.546(*)	1258.616	.000	-12891.855	-4355.237
	1	3019.658(*)	409.701	.000	1630.251	4409.065
	2	2836.932(*)	368.661	.000	1586.702	4087.162
	3	2485.003(*)	323.466	.000	1388.041	3581.965
	4	2717.634(*)	287.644	.000	1742.154	3693.113
	6	-1907.366(*)	360.259	.000	-3129.102	-685.631
	7	-6321.029(*)	725.581	.000	-8781.672	-3860.385
	8	-10789.187(*)	1338.738	.000	-15329.213	-6249.162
	9	-14535.650(*)	2142.033	.000	-21799.869	-7271.431

6	10	-14376.017(*)	2036.888	.000	-21283.662	-7468.372
	11	-11337.829(*)	1720.082	.000	-17171.097	-5504.562
	12	-5905.912(*)	1120.493	.000	-9705.811	-2106.013
	1	4927.024(*)	639.097	.000	2759.672	7094.377
	2	4744.299(*)	635.157	.000	2590.306	6898.291
	3	4392.369(*)	588.650	.000	2396.098	6388.641
	4	4625.000(*)	561.969	.000	2719.210	6530.789
	5	1907.366(*)	360.259	.000	685.631	3129.102
	7	-4413.662(*)	497.816	.000	-6101.894	-2725.431
	8	-8881.821(*)	1132.876	.000	-12723.712	-5039.931
	9	-12628.284(*)	1973.605	.000	-19321.319	-5935.249
	10	-12468.651(*)	1861.294	.000	-18780.807	-6156.495
7	11	-9430.463(*)	1546.241	.000	-14674.188	-4186.738
	12	-3998.546(*)	1005.884	.006	-7409.772	-587.320
	1	9340.687(*)	997.461	.000	5958.024	12723.349
	2	9157.961(*)	1001.375	.000	5762.023	12553.899
	3	8806.032(*)	972.069	.000	5509.481	12102.582
	4	9038.662(*)	956.596	.000	5794.583	12282.742
	5	6321.029(*)	725.581	.000	3860.385	8781.672
	6	4413.662(*)	497.816	.000	2725.431	6101.894
	8	-4468.159(*)	732.326	.000	-6951.677	-1984.641
	9	-8214.622(*)	1646.331	.000	-13797.781	-2631.462
	10	-8054.988(*)	1510.194	.000	-13176.468	-2933.509
	11	-5016.800(*)	1245.889	.005	-9241.952	-791.649
8	12	415.116	867.009	1.000	-2525.149	3355.382
	1	13808.846(*)	1569.293	.000	8486.945	19130.746
	2	13626.120(*)	1580.667	.000	8265.648	18986.592
	3	13274.190(*)	1566.078	.000	7963.192	18585.188
	4	13506.821(*)	1557.854	.000	8223.712	18789.930
	5	10789.187(*)	1338.738	.000	6249.162	15329.213
	6	8881.821(*)	1132.876	.000	5039.931	12723.712
	7	4468.159(*)	732.326	.000	1984.641	6951.677
	9	-3746.463	1132.091	.066	-7585.694	92.768

9	10	-3586.830(*)	1046.543	.044	-7135.945	-37.715
	11	-548.642	855.742	1.000	-3450.698	2353.415
	12	4883.275(*)	973.821	.000	1580.781	8185.769
	1	17555.308(*)	2379.861	.000	9484.550	25626.067
	2	17372.583(*)	2360.545	.000	9367.330	25377.835
	3	17020.653(*)	2340.819	.000	9082.296	24959.010
	4	17253.284(*)	2334.563	.000	9336.144	25170.423
	5	14535.650(*)	2142.033	.000	7271.431	21799.869
	6	12628.284(*)	1973.605	.000	5935.249	19321.319
	7	8214.622(*)	1646.331	.000	2631.462	13797.781
	8	3746.463	1132.091	.066	-92.768	7585.694
	10	159.633	968.003	1.000	-3123.130	3442.396
10	11	3197.821	1139.615	.296	-666.926	7062.568
	12	8629.738(*)	1638.007	.000	3074.808	14184.668
	1	17395.675(*)	2241.901	.000	9792.775	24998.575
	2	17212.949(*)	2251.104	.000	9578.839	24847.059
	3	16861.020(*)	2241.994	.000	9257.805	24464.235
	4	17093.651(*)	2236.531	.000	9508.964	24678.338
	5	14376.017(*)	2036.888	.000	7468.372	21283.662
	6	12468.651(*)	1861.294	.000	6156.495	18780.807
	7	8054.988(*)	1510.194	.000	2933.509	13176.468
	8	3586.830(*)	1046.543	.044	37.715	7135.945
	9	-159.633	968.003	1.000	-3442.396	3123.130
	11	3038.188(*)	734.430	.003	547.534	5528.841
11	12	8470.105(*)	1291.880	.000	4088.988	12851.221
	1	14357.487(*)	1882.483	.000	7973.472	20741.502
	2	14174.762(*)	1897.840	.000	7738.667	20610.856
	3	13822.832(*)	1893.480	.000	7401.524	20244.140
	4	14055.463(*)	1889.156	.000	7648.819	20462.106
	5	11337.829(*)	1720.082	.000	5504.562	17171.097
	6	9430.463(*)	1546.241	.000	4186.738	14674.188
	7	5016.800(*)	1245.889	.005	791.649	9241.952
	8	548.642	855.742	1.000	-2353.415	3450.698

12	9	-3197.821	1139.615	.296	-7062.568	666.926
	10	-3038.188(*)	734.430	.003	-5528.841	-547.534
	12	5431.917(*)	841.473	.000	2578.252	8285.582
	1	8925.570(*)	1224.827	.000	4771.847	13079.294
	2	8742.845(*)	1248.041	.000	4510.397	12975.292
	3	8390.915(*)	1262.094	.000	4110.809	12671.022
	4	8623.546(*)	1258.616	.000	4355.237	12891.855
	5	5905.912(*)	1120.493	.000	2106.013	9705.811
	6	3998.546(*)	1005.884	.006	587.320	7409.772
	7	-415.116	867.009	1.000	-3355.382	2525.149
	8	-4883.275(*)	973.821	.000	-8185.769	-1580.781
	9	-8629.738(*)	1638.007	.000	-14184.668	-3074.808
	10	-8470.105(*)	1291.880	.000	-12851.221	-4088.988
	11	-5431.917(*)	841.473	.000	-8285.582	-2578.252

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	23067.729	2866.424	17429.748	28705.710
Medium	7895.209	2009.217	3943.272	11847.146
High	17985.894	2817.140	12444.848	23526.939

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	14822190253.808	2	7411095126.904	10.612	.000	.058	.989
Error	239548673514.636	343	698392634.154				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Product Level	(J) Total Product Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium	15172.520(*)	3500.476	.000	6773.284	23571.755
	High	5081.835	4019.038	.501	-4561.664	14725.335
Medium	Low	-15172.520(*)	3500.476	.000	-23571.755	-6773.284
	High	-10090.684(*)	3460.236	.011	-18393.364	-1788.005
High	Low	-5081.835	4019.038	.501	-14725.335	4561.664
	Medium	10090.684(*)	3460.236	.011	1788.005	18393.364

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Sidak.

## 3. Total Product Level \* year

### Estimates

Measure: MEASURE\_1

Total Product Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound

Low	1	12833.863	1427.298	10026.505	15641.221
	2	12757.562	1392.448	10018.751	15496.374
	3	13316.979	1409.111	10545.394	16088.565
	4	12641.448	1413.995	9860.254	15422.642
	5	16613.297	1881.052	12913.449	20313.146
	6	19086.744	2290.303	14581.937	23591.551
	7	25840.181	3076.293	19789.408	31890.954
	8	31945.678	4174.638	23734.564	40156.792
	9	34127.582	5631.849	23050.273	45204.890
	10	38160.151	5353.429	27630.469	48689.834
	11	33924.195	4646.399	24785.173	43063.216
	12	25565.067	3391.374	18894.559	32235.574
Medium	1	4636.666	1000.463	2668.852	6604.481
	2	4813.875	976.035	2894.107	6733.642
	3	5084.555	987.715	3141.815	7027.295
	4	4787.010	991.139	2837.535	6736.485
	5	6062.744	1318.521	3469.339	8656.149
	6	6883.402	1605.386	3725.762	10041.042
	7	8718.727	2156.324	4477.443	12960.010
	8	9839.951	2926.209	4084.379	15595.523
	9	11835.633	3947.639	4071.005	19600.262
	10	12471.605	3752.481	5090.835	19852.375
	11	10904.212	3256.888	4498.224	17310.200
	12	8704.133	2377.180	4028.447	13379.818
High	1	8890.887	1402.758	6131.797	11649.978
	2	9338.157	1368.507	6646.435	12029.879
	3	9563.848	1384.883	6839.915	12287.781
	4	9839.032	1389.684	7105.656	12572.408
	5	12744.350	1848.710	9108.114	16380.586
	6	15172.343	2250.925	10744.988	19599.698
	7	19824.570	3023.401	13877.829	25771.310
	8	26002.324	4102.863	17932.386	34072.263

9	33064.126	5535.019	22177.273	43950.980
10	27916.686	5261.386	17568.043	38265.328
11	24605.472	4566.512	15623.580	33587.364
12	18868.929	3333.065	12313.109	25424.748

#### Multivariate Tests

Total Product Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.200	7.562(b)	11.000	333.000	.000	.200	1.000
	Wilks' lambda	.800	7.562(b)	11.000	333.000	.000	.200	1.000
	Hotelling's trace	.250	7.562(b)	11.000	333.000	.000	.200	1.000
	Roy's largest root	.250	7.562(b)	11.000	333.000	.000	.200	1.000
Medium	Pillai's trace	.058	1.855(b)	11.000	333.000	.044	.058	.874
	Wilks' lambda	.942	1.855(b)	11.000	333.000	.044	.058	.874
	Hotelling's trace	.061	1.855(b)	11.000	333.000	.044	.058	.874
	Roy's largest root	.061	1.855(b)	11.000	333.000	.044	.058	.874
High	Pillai's trace	.121	4.176(b)	11.000	333.000	.000	.121	.999
	Wilks' lambda	.879	4.176(b)	11.000	333.000	.000	.121	.999
	Hotelling's trace	.138	4.176(b)	11.000	333.000	.000	.121	.999
	Roy's largest root	.138	4.176(b)	11.000	333.000	.000	.121	.999

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

#### Pairwise Comparisons

Measure: MEASURE\_1

Total Product Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	1	2	76.301	345.827	1.000	-1096.494	1249.096
		3	-483.116	516.595	1.000	-2235.032	1268.799
		4	192.415	526.348	1.000	-1592.575	1977.404
		5	-3779.434(*)	784.087	.000	-6438.487	-1120.381
		6	-6252.881(*)	1223.107	.000	-10400.770	-2104.993
		7	-13006.318(*)	1908.945	.000	-19480.073	-6532.563
		8	-19111.815(*)	3003.320	.000	-29296.893	-8926.737
		9	-21293.719(*)	4554.589	.000	-36739.573	-5847.864
		10	-25326.289(*)	4290.561	.000	-39876.754	-10775.823
		11	-21090.332(*)	3602.705	.000	-33308.089	-8872.574
		12	-12731.204(*)	2344.080	.000	-20680.618	-4781.789
	2	1	-76.301	345.827	1.000	-1249.096	1096.494
		3	-559.417	300.367	.987	-1578.044	459.210
		4	116.114	367.459	1.000	-1130.041	1362.269
		5	-3855.735(*)	705.545	.000	-6248.431	-1463.039
		6	-6329.182(*)	1215.567	.000	-10451.502	-2206.862
		7	-13082.619(*)	1916.437	.000	-19581.780	-6583.457
		8	-19188.116(*)	3025.087	.000	-29447.012	-8929.219
		9	-21370.019(*)	4517.622	.000	-36690.509	-6049.530
		10	-25402.589(*)	4308.174	.000	-40012.784	-10792.394
		11	-21166.632(*)	3632.095	.000	-33484.060	-8849.204
		12	-12807.504(*)	2388.506	.000	-20907.581	-4707.427
	3	1	483.116	516.595	1.000	-1268.799	2235.032
		2	559.417	300.367	.987	-459.210	1578.044
		4	675.531	232.062	.224	-111.453	1462.515
		5	-3296.318(*)	619.051	.000	-5395.689	-1196.947
		6	-5769.765(*)	1126.560	.000	-9590.239	-1949.291
		7	-12523.202(*)	1860.349	.000	-18832.155	-6214.248
		8	-18628.699(*)	2997.167	.000	-28792.911	-8464.486
		9	-20810.602(*)	4479.870	.000	-36003.067	-5618.138
		10	-24843.172(*)	4290.739	.000	-39394.239	-10292.105

4	11	-20607.215(*)	3623.751	.000	-32896.344	-8318.087
	12	-12248.087(*)	2415.402	.000	-20439.375	-4056.799
	1	-192.415	526.348	1.000	-1977.404	1592.575
	2	-116.114	367.459	1.000	-1362.269	1130.041
	3	-675.531	232.062	.224	-1462.515	111.453
	5	-3971.849(*)	550.494	.000	-5838.726	-2104.972
	6	-6445.296(*)	1075.498	.000	-10092.605	-2797.987
	7	-13198.733(*)	1830.738	.000	-19407.267	-6990.199
	8	-19304.230(*)	2981.429	.000	-29415.069	-9193.391
	9	-21486.133(*)	4467.897	.000	-36637.992	-6334.275
	10	-25518.703(*)	4280.283	.000	-40034.312	-11003.094
	11	-21282.746(*)	3615.475	.000	-33543.810	-9021.683
5	12	-12923.618(*)	2408.744	.000	-21092.329	-4754.908
	1	3779.434(*)	784.087	.000	1120.381	6438.487
	2	3855.735(*)	705.545	.000	1463.039	6248.431
	3	3296.318(*)	619.051	.000	1196.947	5395.689
	4	3971.849(*)	550.494	.000	2104.972	5838.726
	6	-2473.447(*)	689.464	.025	-4811.610	-135.285
	7	-9226.884(*)	1388.620	.000	-13936.074	-4517.693
	8	-15332.381(*)	2562.082	.000	-24021.103	-6643.659
	9	-17514.284(*)	4099.432	.002	-31416.580	-3611.989
	10	-21546.854(*)	3898.206	.000	-34766.737	-8326.971
	11	-17310.897(*)	3291.900	.000	-28474.631	-6147.163
	12	-8951.769(*)	2144.405	.002	-16224.033	-1679.505
6	1	6252.881(*)	1223.107	.000	2104.993	10400.770
	2	6329.182(*)	1215.567	.000	2206.862	10451.502
	3	5769.765(*)	1126.560	.000	1949.291	9590.239
	4	6445.296(*)	1075.498	.000	2797.987	10092.605
	5	2473.447(*)	689.464	.025	135.285	4811.610
	7	-6753.437(*)	952.723	.000	-9984.382	-3522.491
	8	-12858.934(*)	2168.102	.000	-20211.562	-5506.306
	9	-15040.837(*)	3777.095	.005	-27849.998	-2231.677
	10	-19073.407(*)	3562.153	.000	-31153.640	-6993.174

7	11	-14837.450(*)	2959.202	.000	-24872.914	-4801.986
	12	-6478.322	1925.065	.055	-13006.743	50.098
	1	13006.318(*)	1908.945	.000	6532.563	19480.073
	2	13082.619(*)	1916.437	.000	6583.457	19581.780
	3	12523.202(*)	1860.349	.000	6214.248	18832.155
	4	13198.733(*)	1830.738	.000	6990.199	19407.267
	5	9226.884(*)	1388.620	.000	4517.693	13936.074
	6	6753.437(*)	952.723	.000	3522.491	9984.382
	8	-6105.497(*)	1401.529	.001	-10858.465	-1352.529
	9	-8287.401	3150.757	.446	-18972.478	2397.676
	10	-12319.971(*)	2890.215	.002	-22121.481	-2518.460
	11	-8084.014	2384.389	.050	-16170.128	2.101
8	12	275.114	1659.287	1.000	-5351.980	5902.209
	1	19111.815(*)	3003.320	.000	8926.737	29296.893
	2	19188.116(*)	3025.087	.000	8929.219	29447.012
	3	18628.699(*)	2997.167	.000	8464.486	28792.911
	4	19304.230(*)	2981.429	.000	9193.391	29415.069
	5	15332.381(*)	2562.082	.000	6643.659	24021.103
	6	12858.934(*)	2168.102	.000	5506.306	20211.562
	7	6105.497(*)	1401.529	.001	1352.529	10858.465
	9	-2181.904	2166.602	1.000	-9529.441	5165.634
	10	-6214.473	2002.880	.128	-13006.786	577.839
	11	-1978.517	1637.724	1.000	-7532.486	3575.452
	12	6380.611(*)	1863.703	.045	60.284	12700.939
9	1	21293.719(*)	4554.589	.000	5847.864	36739.573
	2	21370.019(*)	4517.622	.000	6049.530	36690.509
	3	20810.602(*)	4479.870	.000	5618.138	36003.067
	4	21486.133(*)	4467.897	.000	6334.275	36637.992
	5	17514.284(*)	4099.432	.002	3611.989	31416.580
	6	15040.837(*)	3777.095	.005	2231.677	27849.998
	7	8287.401	3150.757	.446	-2397.676	18972.478
	8	2181.904	2166.602	1.000	-5165.634	9529.441
	10	-4032.570	1852.569	.868	-10315.137	2249.997

10	11	203.387	2181.001	1.000	-7192.984	7599.758
	12	8562.515	3134.826	.355	-2068.536	19193.566
	1	25326.289(*)	4290.561	.000	10775.823	39876.754
	2	25402.589(*)	4308.174	.000	10792.394	40012.784
	3	24843.172(*)	4290.739	.000	10292.105	39394.239
	4	25518.703(*)	4280.283	.000	11003.094	40034.312
	5	21546.854(*)	3898.206	.000	8326.971	34766.737
	6	19073.407(*)	3562.153	.000	6993.174	31153.640
	7	12319.971(*)	2890.215	.002	2518.460	22121.481
	8	6214.473	2002.880	.128	-577.839	13006.786
	9	4032.570	1852.569	.868	-2249.997	10315.137
	11	4235.957	1405.556	.167	-530.667	9002.581
11	12	12595.085(*)	2472.405	.000	4210.484	20979.686
	1	21090.332(*)	3602.705	.000	8872.574	33308.089
	2	21166.632(*)	3632.095	.000	8849.204	33484.060
	3	20607.215(*)	3623.751	.000	8318.087	32896.344
	4	21282.746(*)	3615.475	.000	9021.683	33543.810
	5	17310.897(*)	3291.900	.000	6147.163	28474.631
	6	14837.450(*)	2959.202	.000	4801.986	24872.914
	7	8084.014	2384.389	.050	-2.101	16170.128
	8	1978.517	1637.724	1.000	-3575.452	7532.486
	9	-203.387	2181.001	1.000	-7599.758	7192.984
	10	-4235.957	1405.556	.167	-9002.581	530.667
	12	8359.128(*)	1610.415	.000	2897.772	13820.485
12	1	12731.204(*)	2344.080	.000	4781.789	20680.618
	2	12807.504(*)	2388.506	.000	4707.427	20907.581
	3	12248.087(*)	2415.402	.000	4056.799	20439.375
	4	12923.618(*)	2408.744	.000	4754.908	21092.329
	5	8951.769(*)	2144.405	.002	1679.505	16224.033
	6	6478.322	1925.065	.055	-50.098	13006.743
	7	-275.114	1659.287	1.000	-5902.209	5351.980
	8	-6380.611(*)	1863.703	.045	-12700.939	-60.284
	9	-8562.515	3134.826	.355	-19193.566	2068.536

Medium	1	10	-12595.085(*)	2472.405	.000	-20979.686	-4210.484
		11	-8359.128(*)	1610.415	.000	-13820.485	-2897.772
		2	-177.208	242.407	1.000	-999.278	644.861
		3	-447.889	362.107	1.000	-1675.892	780.115
		4	-150.344	368.943	1.000	-1401.531	1100.843
		5	-1426.078	549.605	.480	-3289.938	437.783
		6	-2246.736	857.335	.455	-5154.194	660.722
		7	-4082.060	1338.073	.150	-8619.832	455.712
		8	-5203.285	2105.174	.604	-12342.505	1935.935
		9	-7198.967	3192.534	.809	-18025.723	3627.789
		10	-7834.938	3007.464	.470	-18034.072	2364.195
		11	-6267.546	2525.312	.594	-14831.570	2296.479
	2	12	-4067.466	1643.080	.600	-9639.600	1504.668
		1	177.208	242.407	1.000	-644.861	999.278
		3	-270.680	210.542	1.000	-984.685	443.325
		4	26.864	257.570	1.000	-846.627	900.355
		5	-1248.869	494.551	.550	-2926.027	428.289
		6	-2069.528	852.051	.647	-4959.064	820.009
		7	-3904.852	1343.325	.227	-8460.433	650.729
		8	-5026.076	2120.432	.705	-12217.039	2164.887
		9	-7021.759	3166.622	.839	-17760.640	3717.122
		10	-7657.730	3019.810	.539	-17898.731	2583.271
		11	-6090.337	2545.914	.684	-14724.226	2543.551
		12	-3890.258	1674.221	.749	-9567.999	1787.483
	3	1	447.889	362.107	1.000	-780.115	1675.892
		2	270.680	210.542	1.000	-443.325	984.685
		4	297.545	162.663	.991	-254.091	849.180
		5	-978.189	433.923	.809	-2449.741	493.363
		6	-1798.847	789.661	.790	-4476.805	879.110
		7	-3634.172	1304.010	.311	-8056.426	788.082
		8	-4755.396	2100.861	.802	-11879.991	2369.198
		9	-6751.079	3140.161	.885	-17400.221	3898.064
		10	-7387.050	3007.589	.620	-17586.606	2812.506

4	11	-5819.657	2540.064	.778	-14433.709	2794.395
	12	-3619.578	1693.074	.893	-9361.253	2122.097
	1	150.344	368.943	1.000	-1100.843	1401.531
	2	-26.864	257.570	1.000	-900.355	846.627
	3	-297.545	162.663	.991	-849.180	254.091
	5	-1275.734	385.868	.067	-2584.319	32.852
	6	-2096.392	753.869	.315	-4652.970	460.185
	7	-3931.716	1283.254	.144	-8283.582	420.149
	8	-5052.941	2089.829	.658	-12140.123	2034.241
	9	-7048.623	3131.768	.812	-17669.303	3572.056
	10	-7684.594	3000.260	.513	-17859.296	2490.107
	11	-6117.202	2534.264	.662	-14711.582	2477.178
5	12	-3917.123	1688.407	.752	-9642.972	1808.727
	1	1426.078	549.605	.480	-437.783	3289.938
	2	1248.869	494.551	.550	-428.289	2926.027
	3	978.189	433.923	.809	-493.363	2449.741
	4	1275.734	385.868	.067	-32.852	2584.319
	6	-820.658	483.279	.998	-2459.591	818.274
	7	-2655.983	973.352	.358	-5956.885	644.920
	8	-3777.207	1795.889	.912	-9867.558	2313.144
	9	-5772.890	2873.493	.953	-15517.690	3971.910
	10	-6408.861	2732.444	.729	-15675.324	2857.603
	11	-4841.468	2307.454	.915	-12666.676	2983.740
	12	-2641.389	1503.119	.996	-7738.875	2456.097
6	1	2246.736	857.335	.455	-660.722	5154.194
	2	2069.528	852.051	.647	-820.009	4959.064
	3	1798.847	789.661	.790	-879.110	4476.805
	4	2096.392	753.869	.315	-460.185	4652.970
	5	820.658	483.279	.998	-818.274	2459.591
	7	-1835.324	667.810	.341	-4100.052	429.403
	8	-2956.549	1519.729	.972	-8110.366	2197.268
	9	-4952.231	2647.551	.986	-13930.800	4026.337
	10	-5588.202	2496.887	.823	-14055.829	2879.424

7	11	-4020.810	2074.250	.973	-11055.158	3013.539
	12	-1820.730	1349.372	1.000	-6396.820	2755.359
	1	4082.060	1338.073	.150	-455.712	8619.832
	2	3904.852	1343.325	.227	-650.729	8460.433
	3	3634.172	1304.010	.311	-788.082	8056.426
	4	3931.716	1283.254	.144	-420.149	8283.582
	5	2655.983	973.352	.358	-644.920	5956.885
	6	1835.324	667.810	.341	-429.403	4100.052
	8	-1121.224	982.400	1.000	-4452.812	2210.364
	9	-3116.907	2208.520	1.000	-10606.601	4372.787
	10	-3752.878	2025.894	.988	-10623.237	3117.481
	11	-2185.485	1671.335	1.000	-7853.439	3482.468
8	12	14.594	1163.075	1.000	-3929.712	3958.900
	1	5203.285	2105.174	.604	-1935.935	12342.505
	2	5026.076	2120.432	.705	-2164.887	12217.039
	3	4755.396	2100.861	.802	-2369.198	11879.991
	4	5052.941	2089.829	.658	-2034.241	12140.123
	5	3777.207	1795.889	.912	-2313.144	9867.558
	6	2956.549	1519.729	.972	-2197.268	8110.366
	7	1121.224	982.400	1.000	-2210.364	4452.812
	9	-1995.683	1518.677	1.000	-7145.932	3154.567
	10	-2631.654	1403.917	.985	-7392.718	2129.411
	11	-1064.261	1147.961	1.000	-4957.310	2828.788
	12	1135.818	1306.361	1.000	-3294.409	5566.046
9	1	7198.967	3192.534	.809	-3627.789	18025.723
	2	7021.759	3166.622	.839	-3717.122	17760.640
	3	6751.079	3140.161	.885	-3898.064	17400.221
	4	7048.623	3131.768	.812	-3572.056	17669.303
	5	5772.890	2873.493	.953	-3971.910	15517.690
	6	4952.231	2647.551	.986	-4026.337	13930.800
	7	3116.907	2208.520	1.000	-4372.787	10606.601
	8	1995.683	1518.677	1.000	-3154.567	7145.932
	10	-635.971	1298.556	1.000	-5039.730	3767.788

10	11	931.422	1528.771	1.000	-4253.057	6115.900
	12	3131.501	2197.353	1.000	-4320.323	10583.325
	1	7834.938	3007.464	.470	-2364.195	18034.072
	2	7657.730	3019.810	.539	-2583.271	17898.731
	3	7387.050	3007.589	.620	-2812.506	17586.606
	4	7684.594	3000.260	.513	-2490.107	17859.296
	5	6408.861	2732.444	.729	-2857.603	15675.324
	6	5588.202	2496.887	.823	-2879.424	14055.829
	7	3752.878	2025.894	.988	-3117.481	10623.237
	8	2631.654	1403.917	.985	-2129.411	7392.718
	9	635.971	1298.556	1.000	-3767.788	5039.730
	11	1567.393	985.223	1.000	-1773.768	4908.553
11	12	3767.472	1733.030	.870	-2109.706	9644.650
	1	6267.546	2525.312	.594	-2296.479	14831.570
	2	6090.337	2545.914	.684	-2543.551	14724.226
	3	5819.657	2540.064	.778	-2794.395	14433.709
	4	6117.202	2534.264	.662	-2477.178	14711.582
	5	4841.468	2307.454	.915	-2983.740	12666.676
	6	4020.810	2074.250	.973	-3013.539	11055.158
	7	2185.485	1671.335	1.000	-3482.468	7853.439
	8	1064.261	1147.961	1.000	-2828.788	4957.310
	9	-931.422	1528.771	1.000	-6115.900	4253.057
	10	-1567.393	985.223	1.000	-4908.553	1773.768
	12	2200.079	1128.819	.971	-1628.053	6028.212
12	1	4067.466	1643.080	.600	-1504.668	9639.600
	2	3890.258	1674.221	.749	-1787.483	9567.999
	3	3619.578	1693.074	.893	-2122.097	9361.253
	4	3917.123	1688.407	.752	-1808.727	9642.972
	5	2641.389	1503.119	.996	-2456.097	7738.875
	6	1820.730	1349.372	1.000	-2755.359	6396.820
	7	-14.594	1163.075	1.000	-3958.900	3929.712
	8	-1135.818	1306.361	1.000	-5566.046	3294.409
	9	-3131.501	2197.353	1.000	-10583.325	4320.323



High	1	10	-3767.472	1733.030	.870	-9644.650	2109.706
		11	-2200.079	1128.819	.971	-6028.212	1628.053
		2	-447.269	339.881	1.000	-1599.900	705.361
		3	-672.960	507.713	1.000	-2394.755	1048.834
		4	-948.144	517.298	.990	-2702.444	806.156
		5	-3853.462(*)	770.606	.000	-6466.797	-1240.127
		6	-6281.456(*)	1202.077	.000	-10358.029	-2204.883
		7	-10933.682(*)	1876.124	.000	-17296.132	-4571.232
		8	-17111.437(*)	2951.683	.000	-27121.400	-7101.474
		9	-24173.239(*)	4476.280	.000	-39353.529	-8992.949
		10	-19025.798(*)	4216.792	.001	-33326.094	-4725.503
		11	-15714.585(*)	3540.763	.001	-27722.279	-3706.890
	2	12	-9978.041(*)	2303.777	.001	-17790.779	-2165.303
		1	447.269	339.881	1.000	-705.361	1599.900
		3	-225.691	295.203	1.000	-1226.804	775.422
		4	-500.875	361.141	1.000	-1725.604	723.855
		5	-3406.193(*)	693.414	.000	-5757.751	-1054.635
		6	-5834.186(*)	1194.668	.000	-9885.630	-1782.742
		7	-10486.413(*)	1883.487	.000	-16873.832	-4098.993
		8	-16664.167(*)	2973.076	.000	-26746.680	-6581.655
		9	-23725.970(*)	4439.949	.000	-38783.050	-8668.890
		10	-18578.529(*)	4234.102	.001	-32937.527	-4219.531
		11	-15267.315(*)	3569.648	.002	-27372.966	-3161.664
		12	-9530.772(*)	2347.440	.004	-17491.582	-1569.961
	3	1	672.960	507.713	1.000	-1048.834	2394.755
		2	225.691	295.203	1.000	-775.422	1226.804
		4	-275.184	228.072	1.000	-1048.637	498.269
		5	-3180.502(*)	608.408	.000	-5243.778	-1117.226
		6	-5608.495(*)	1107.191	.000	-9363.283	-1853.708
		7	-10260.722(*)	1828.364	.000	-16461.203	-4060.240
		8	-16438.477(*)	2945.636	.000	-26427.933	-6449.020
		9	-23500.279(*)	4402.847	.000	-38431.535	-8569.022
		10	-18352.838(*)	4216.967	.001	-32653.725	-4051.951

4	11	-15041.624(*)	3561.447	.002	-27119.463	-2963.786
	12	-9305.081(*)	2373.873	.007	-17355.534	-1254.628
	1	948.144	517.298	.990	-806.156	2702.444
	2	500.875	361.141	1.000	-723.855	1725.604
	3	275.184	228.072	1.000	-498.269	1048.637
	5	-2905.318(*)	541.030	.000	-4740.097	-1070.539
	6	-5333.311(*)	1057.007	.000	-8917.911	-1748.712
	7	-9985.538(*)	1799.262	.000	-16087.327	-3883.749
	8	-16163.293(*)	2930.168	.000	-26100.293	-6226.292
	9	-23225.095(*)	4391.079	.000	-38116.443	-8333.746
	10	-18077.654(*)	4206.691	.001	-32343.693	-3811.616
	11	-14766.440(*)	3553.313	.003	-26816.697	-2716.184
5	12	-9029.897(*)	2367.330	.011	-17058.160	-1001.633
	1	3853.462(*)	770.606	.000	1240.127	6466.797
	2	3406.193(*)	693.414	.000	1054.635	5757.751
	3	3180.502(*)	608.408	.000	1117.226	5243.778
	4	2905.318(*)	541.030	.000	1070.539	4740.097
	6	-2427.993(*)	677.610	.025	-4725.955	-130.032
	7	-7080.220(*)	1364.745	.000	-11708.444	-2451.995
	8	-13257.975(*)	2518.032	.000	-21797.309	-4718.640
	9	-20319.777(*)	4028.950	.000	-33983.046	-6656.507
	10	-15172.336(*)	3831.184	.006	-28164.926	-2179.746
	11	-11861.122(*)	3235.302	.019	-22832.915	-889.329
	12	-6124.579	2107.536	.227	-13271.809	1022.651
6	1	6281.456(*)	1202.077	.000	2204.883	10358.029
	2	5834.186(*)	1194.668	.000	1782.742	9885.630
	3	5608.495(*)	1107.191	.000	1853.708	9363.283
	4	5333.311(*)	1057.007	.000	1748.712	8917.911
	5	2427.993(*)	677.610	.025	130.032	4725.955
	7	-4652.226(*)	936.343	.000	-7827.621	-1476.832
	8	-10829.981(*)	2130.826	.000	-18056.193	-3603.769
	9	-17891.783(*)	3712.154	.000	-30480.713	-5302.854
	10	-12744.343(*)	3500.908	.021	-24616.877	-871.809

7	11	-9433.129	2908.324	.082	-19296.051	429.793
	12	-3696.586	1891.967	.970	-10112.761	2719.590
	1	10933.682(*)	1876.124	.000	4571.232	17296.132
	2	10486.413(*)	1883.487	.000	4098.993	16873.832
	3	10260.722(*)	1828.364	.000	4060.240	16461.203
	4	9985.538(*)	1799.262	.000	3883.749	16087.327
	5	7080.220(*)	1364.745	.000	2451.995	11708.444
	6	4652.226(*)	936.343	.000	1476.832	7827.621
	8	-6177.755(*)	1377.432	.001	-10849.003	-1506.506
	9	-13239.557(*)	3096.585	.002	-23740.923	-2738.191
	10	-8092.116	2840.523	.265	-17725.107	1540.874
	11	-4780.902	2343.394	.942	-12727.990	3166.185
8	12	955.641	1630.758	1.000	-4574.705	6485.987
	1	17111.437(*)	2951.683	.000	7101.474	27121.400
	2	16664.167(*)	2973.076	.000	6581.655	26746.680
	3	16438.477(*)	2945.636	.000	6449.020	26427.933
	4	16163.293(*)	2930.168	.000	6226.292	26100.293
	5	13257.975(*)	2518.032	.000	4718.640	21797.309
	6	10829.981(*)	2130.826	.000	3603.769	18056.193
	7	6177.755(*)	1377.432	.001	1506.506	10849.003
	9	-7061.802	2129.351	.064	-14283.012	159.407
	10	-1914.362	1968.444	1.000	-8589.892	4761.169
	11	1396.852	1609.566	1.000	-4061.626	6855.330
	12	7133.396(*)	1831.660	.008	921.735	13345.056
9	1	24173.239(*)	4476.280	.000	8992.949	39353.529
	2	23725.970(*)	4439.949	.000	8668.890	38783.050
	3	23500.279(*)	4402.847	.000	8569.022	38431.535
	4	23225.095(*)	4391.079	.000	8333.746	38116.443
	5	20319.777(*)	4028.950	.000	6656.507	33983.046
	6	17891.783(*)	3712.154	.000	5302.854	30480.713
	7	13239.557(*)	3096.585	.002	2738.191	23740.923
	8	7061.802	2129.351	.064	-159.407	14283.012
	10	5147.441	1820.717	.280	-1027.109	11321.990

10	11	8458.654(*)	2143.503	.006	1189.451	15727.858
	12	14195.198(*)	3080.928	.000	3746.930	24643.466
	1	19025.798(*)	4216.792	.001	4725.503	33326.094
	2	18578.529(*)	4234.102	.001	4219.531	32937.527
	3	18352.838(*)	4216.967	.001	4051.951	32653.725
	4	18077.654(*)	4206.691	.001	3811.616	32343.693
	5	15172.336(*)	3831.184	.006	2179.746	28164.926
	6	12744.343(*)	3500.908	.021	871.809	24616.877
	7	8092.116	2840.523	.265	-1540.874	17725.107
	8	1914.362	1968.444	1.000	-4761.169	8589.892
	9	-5147.441	1820.717	.280	-11321.990	1027.109
	11	3311.214	1381.390	.679	-1373.456	7995.884
11	12	9047.757(*)	2429.896	.015	807.315	17288.200
	1	15714.585(*)	3540.763	.001	3706.890	27722.279
	2	15267.315(*)	3569.648	.002	3161.664	27372.966
	3	15041.624(*)	3561.447	.002	2963.786	27119.463
	4	14766.440(*)	3553.313	.003	2716.184	26816.697
	5	11861.122(*)	3235.302	.019	889.329	22832.915
	6	9433.129	2908.324	.082	-429.793	19296.051
	7	4780.902	2343.394	.942	-3166.185	12727.990
	8	-1396.852	1609.566	1.000	-6855.330	4061.626
	9	-8458.654(*)	2143.503	.006	-15727.858	-1189.451
	10	-3311.214	1381.390	.679	-7995.884	1373.456
	12	5736.543(*)	1582.726	.022	369.085	11104.001
12	1	9978.041(*)	2303.777	.001	2165.303	17790.779
	2	9530.772(*)	2347.440	.004	1569.961	17491.582
	3	9305.081(*)	2373.873	.007	1254.628	17355.534
	4	9029.897(*)	2367.330	.011	1001.633	17058.160
	5	6124.579	2107.536	.227	-1022.651	13271.809
	6	3696.586	1891.967	.970	-2719.590	10112.761
	7	-955.641	1630.758	1.000	-6485.987	4574.705
	8	-7133.396(*)	1831.660	.008	-13345.056	-921.735
	9	-14195.198(*)	3080.928	.000	-24643.466	-3746.930

10	-9047.757(*)	2429.896	.015	-17288.200	-807.315
11	-5736.543(*)	1582.726	.022	-11104.001	-369.085

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Total Product Level \* year

#### Estimates

Measure: MEASURE\_1

Total Product Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	12833.863	1427.298	10026.505	15641.221
	2	12757.562	1392.448	10018.751	15496.374
	3	13316.979	1409.111	10545.394	16088.565
	4	12641.448	1413.995	9860.254	15422.642
	5	16613.297	1881.052	12913.449	20313.146
	6	19086.744	2290.303	14581.937	23591.551
	7	25840.181	3076.293	19789.408	31890.954
	8	31945.678	4174.638	23734.564	40156.792
	9	34127.582	5631.849	23050.273	45204.890
	10	38160.151	5353.429	27630.469	48689.834
	11	33924.195	4646.399	24785.173	43063.216
	12	25565.067	3391.374	18894.559	32235.574
Medium	1	4636.666	1000.463	2668.852	6604.481
	2	4813.875	976.035	2894.107	6733.642
	3	5084.555	987.715	3141.815	7027.295

High	4	4787.010	991.139	2837.535	6736.485
	5	6062.744	1318.521	3469.339	8656.149
	6	6883.402	1605.386	3725.762	10041.042
	7	8718.727	2156.324	4477.443	12960.010
	8	9839.951	2926.209	4084.379	15595.523
	9	11835.633	3947.639	4071.005	19600.262
	10	12471.605	3752.481	5090.835	19852.375
	11	10904.212	3256.888	4498.224	17310.200
	12	8704.133	2377.180	4028.447	13379.818
	1	8890.887	1402.758	6131.797	11649.978
	2	9338.157	1368.507	6646.435	12029.879
	3	9563.848	1384.883	6839.915	12287.781
	4	9839.032	1389.684	7105.656	12572.408
	5	12744.350	1848.710	9108.114	16380.586
	6	15172.343	2250.925	10744.988	19599.698
	7	19824.570	3023.401	13877.829	25771.310
	8	26002.324	4102.863	17932.386	34072.263
	9	33064.126	5535.019	22177.273	43950.980
	10	27916.686	5261.386	17568.043	38265.328
	11	24605.472	4566.512	15623.580	33587.364
	12	18868.929	3333.065	12313.109	25424.748

#### Univariate Tests

Measure: MEASURE\_1

year	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1 Contrast	3988179857.711	2	1994089928.856	11.516	.000	.063	.993

	Error	59393942650.255	343	173160182.654				
2	Contrast	3835254785.843	2	1917627392.922	11.636	.000	.064	.994
	Error	56528942481.123	343	164807412.482				
3	Contrast	4067681596.787	2	2033840798.394	12.051	.000	.066	.995
	Error	57889949798.628	343	168775363.845				
4	Contrast	3914708613.270	2	1957354306.635	11.517	.000	.063	.993
	Error	58292017679.182	343	169947573.409				
5	Contrast	7018784321.913	2	3509392160.957	11.668	.000	.064	.994
	Error	103160750863.131	343	300760206.598				
6	Contrast	9683504369.414	2	4841752184.707	10.859	.000	.060	.990
	Error	152932208053.570	343	445866495.783				
7	Contrast	18667898533.834	2	9333949266.917	11.604	.000	.063	.994
	Error	275910586036.820	343	804404040.924				
8	Contrast	33025606430.810	2	16512803215.405	11.147	.000	.061	.992
	Error	508101851005.463	343	1481346504.390				
9	Contrast	40972566817.946	2	20486283408.973	7.599	.001	.042	.945
	Error	924730318395.686	343	2696006759.172				
10	Contrast	40810433180.447	2	20405216590.224	8.376	.000	.047	.963
	Error	835558992703.504	343	2436032048.699				
11	Contrast	32658781996.490	2	16329390998.245	8.899	.000	.049	.972
	Error	629427892982.920	343	1835066743.391				
12	Contrast	17597922679.701	2	8798961339.851	9.000	.000	.050	.973
	Error	335323757578.353	343	977620284.485				

Each F tests the simple effects of Total Product Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Total Product Level	(J) Total Product Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	Low	Medium	8197.197(*)	1743.016	.000	4014.909	12379.485
		High	3942.975	2001.227	.142	-858.877	8744.828
	Medium	Low	-8197.197(*)	1743.016	.000	-12379.485	-4014.909
		High	-4254.221(*)	1722.979	.042	-8388.431	-120.012
	High	Low	-3942.975	2001.227	.142	-8744.828	858.877
		Medium	4254.221(*)	1722.979	.042	120.012	8388.431
2	Low	Medium	7943.688(*)	1700.457	.000	3863.517	12023.858
		High	3419.405	1952.363	.223	-1265.202	8104.013
	Medium	Low	-7943.688(*)	1700.457	.000	-12023.858	-3863.517
		High	-4524.282(*)	1680.909	.022	-8557.548	-491.017
	High	Low	-3419.405	1952.363	.223	-8104.013	1265.202
		Medium	4524.282(*)	1680.909	.022	491.017	8557.548
3	Low	Medium	8232.425(*)	1720.806	.000	4103.429	12361.420
		High	3753.132	1975.726	.165	-987.534	8493.798
	Medium	Low	-8232.425(*)	1720.806	.000	-12361.420	-4103.429
		High	-4479.293(*)	1701.024	.026	-8560.823	-397.763
	High	Low	-3753.132	1975.726	.165	-8493.798	987.534
		Medium	4479.293(*)	1701.024	.026	397.763	8560.823
4	Low	Medium	7854.438(*)	1726.771	.000	3711.128	11997.748
		High	2802.416	1982.576	.404	-1954.684	7559.517
	Medium	Low	-7854.438(*)	1726.771	.000	-11997.748	-3711.128
		High	-5052.022(*)	1706.921	.010	-9147.701	-956.342
	High	Low	-2802.416	1982.576	.404	-7559.517	1954.684
		Medium	5052.022(*)	1706.921	.010	956.342	9147.701
5	Low	Medium	10550.554(*)	2297.140	.000	5038.669	16062.438
		High	3868.948	2637.439	.371	-2459.468	10197.364
	Medium	Low	-10550.554(*)	2297.140	.000	-16062.438	-5038.669
		High	-6681.606(*)	2270.733	.010	-12130.127	-1233.085
	High	Low	-3868.948	2637.439	.371	-10197.364	2459.468
		Medium	6681.606(*)	2270.733	.010	1233.085	12130.127
6	Low	Medium	12203.342(*)	2796.918	.000	5492.263	18914.421
		High	3914.401	3211.254	.532	-3790.858	11619.660
	Medium	Low	-12203.342(*)	2796.918	.000	-18914.421	-5492.263



7	High	High	-8288.941(*)	2764.765	.009	-14922.871	-1655.011
		Low	-3914.401	3211.254	.532	-11619.660	3790.858
	Low	Medium	8288.941(*)	2764.765	.009	1655.011	14922.871
		Medium	17121.454(*)	3756.769	.000	8107.257	26135.651
		High	6015.611	4313.297	.416	-4333.950	16365.173
8	Medium	Low	-17121.454(*)	3756.769	.000	-26135.651	-8107.257
		High	-11105.843(*)	3713.582	.009	-20016.415	-2195.271
	Low	Low	-6015.611	4313.297	.416	-16365.173	4333.950
		Medium	11105.843(*)	3713.582	.009	2195.271	20016.415
		Medium	22105.727(*)	5098.069	.000	9873.142	34338.312
9	Medium	High	5943.354	5853.297	.672	-8101.369	19988.076
		Low	-22105.727(*)	5098.069	.000	-34338.312	-9873.142
	High	High	-16162.373(*)	5039.462	.004	-28254.335	-4070.411
		Low	-5943.354	5853.297	.672	-19988.076	8101.369
		Medium	16162.373(*)	5039.462	.004	4070.411	28254.335
10	Low	Medium	22291.948(*)	6877.614	.004	5789.423	38794.473
		High	1063.455	7896.465	.999	-17883.757	20010.668
	Medium	Low	-22291.948(*)	6877.614	.004	-38794.473	-5789.423
		High	-21228.493(*)	6798.551	.006	-37541.309	-4915.677
		Low	-1063.455	7896.465	.999	-20010.668	17883.757
11	Low	Medium	21228.493(*)	6798.551	.006	4915.677	37541.309
		Medium	25688.547(*)	6537.607	.000	10001.853	41375.241
	Medium	High	10243.466	7506.090	.435	-7767.058	28253.989
		Low	-25688.547(*)	6537.607	.000	-41375.241	-10001.853
		High	-15445.081	6462.453	.051	-30951.444	61.282
12	High	Low	-10243.466	7506.090	.435	-28253.989	7767.058
		Medium	15445.081	6462.453	.051	-61.282	30951.444
	Low	Medium	23019.983(*)	5674.182	.000	9405.039	36634.926
		High	9318.723	6514.756	.393	-6313.141	24950.587
		Low	-23019.983(*)	5674.182	.000	-36634.926	-9405.039
12	Medium	High	-13701.260(*)	5608.953	.045	-27159.689	-242.831
		Low	-9318.723	6514.756	.393	-24950.587	6313.141
	Low	Medium	13701.260(*)	5608.953	.045	242.831	27159.689
		Medium	16860.934(*)	4141.546	.000	6923.482	26798.385
		High	6696.138	4755.075	.407	-4713.449	18105.725

Medium	Low	-16860.934(*)	4141.546	.000	-26798.385	-6923.482
	High	-10164.796(*)	4093.935	.040	-19988.009	-341.583
High	Low	-6696.138	4755.075	.407	-18105.725	4713.449
	Medium	10164.796(*)	4093.935	.040	341.583	19988.009

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Total Product Level 1	Low	85

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	65641432534.350	1	65641432534.350	14.872	.000	.150	.968
	Quadratic	1402938974.098	1	1402938974.098	6.114	.015	.068	.686
	Cubic	17886738556.042	1	17886738556.042	12.930	.001	.133	.945

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Product Level 2	Medium	173

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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year	Linear	12058564929.936	1	12058564929.936	19.441	.000	.102	.992
	Quadratic	305257273.303	1	305257273.303	3.476	.064	.020	.458
	Cubic	3024525094.458	1	3024525094.458	18.969	.000	.099	.991

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Product Level 3	High	88

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	44230029384.583	1	44230029384.583	20.240	.000	.189	.994
	Quadratic	3240114181.664	1	3240114181.664	9.134	.003	.095	.848
	Cubic	15985440946.163	1	15985440946.163	18.431	.000	.175	.989

a. Computed using alpha = .05

### ***General Linear Model with Level of Corporate Governance for Market Capitalization***

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 1	Low	93
2	Medium	215
3	High	38

#### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	87539049580.713	11	7958095416.429	28.632	.000	.077	1.000
	Greenhouse-Geisser	87539049580.713	1.490	58753288395.713	28.632	.000	.077	1.000
	Huynh-Feldt	87539049580.713	1.504	58216719968.147	28.632	.000	.077	1.000
	Lower-bound	87539049580.713	1.000	87539049580.713	28.632	.000	.077	1.000
year * cgovtot_lvl	Sphericity Assumed	112370794237.505	22	5107763374.432	18.377	.000	.097	1.000
	Greenhouse-Geisser	112370794237.505	2.980	37709763315.423	18.377	.000	.097	1.000
	Huynh-Feldt	112370794237.505	3.007	37365376320.949	18.377	.000	.097	1.000
	Lower-bound	112370794237.505	2.000	56185397118.753	18.377	.000	.097	1.000
Error(year)	Sphericity Assumed	1048671373953.967	3773	277940994.952				
	Greenhouse-Geisser	1048671373953.967	511.050	2051991912.500				
	Huynh-Feldt	1048671373953.967	515.761	2033251955.913				
	Lower-bound	1048671373953.967	343.000	3057350944.473				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	62126450263.330	1	62126450263.330	34.441	.000	.091	1.000
	Quadratic	2809522308.201	1	2809522308.201	15.756	.000	.044	.977
	Cubic	19632337072.126	1	19632337072.126	33.785	.000	.090	1.000
year * cgovtot_lvl	Linear	74218915282.427	2	37109457641.214	20.572	.000	.107	1.000
	Quadratic	5474012999.690	2	2737006499.845	15.349	.000	.082	.999
	Cubic	28119952078.736	2	14059976039.368	24.195	.000	.124	1.000
Error(year)	Linear	618725364859.125	343	1803864037.491				
	Quadratic	61161163224.502	343	178312429.226				
	Cubic	199318546642.769	343	581103634.528				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	49689398113 8.547	2	24844699056 9.274	33.346	.000	.163	1.000
Error	25555563840 82.772	343	7450601702.8 66				

a. Computed using alpha = .05

### Estimated Marginal Means

#### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	7711.243	856.080	6027.415	9395.071
2	7863.491	833.433	6224.208	9502.774
3	8158.333	836.137	6513.732	9802.935
4	8015.369	832.719	6377.489	9653.248
5	10439.124	1103.354	8268.933	12609.316
6	12118.435	1342.404	9478.054	14758.816
7	16050.745	1804.503	12501.461	19600.030
8	19705.729	2478.297	14831.156	24580.301
9	23166.413	3365.295	16547.199	29785.627
10	23177.505	3180.599	16921.572	29433.438
11	20078.164	2797.721	14575.315	25581.013

12	15285.321	2050.235	11252.706	19317.936
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### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	2	-152.248	217.400	1.000	-889.511	585.016
	3	-447.090	323.667	1.000	-1544.734	650.554
	4	-304.126	330.075	1.000	-1423.500	815.249
	5	-2727.881(*)	469.186	.000	-4319.020	-1136.743
	6	-4407.192(*)	728.935	.000	-6879.210	-1935.174
	7	-8339.502(*)	1122.798	.000	-12147.216	-4531.789
	8	-11994.485(*)	1793.499	.000	-18076.730	-5912.241
	9	-15455.170(*)	2745.077	.000	-24764.476	-6145.863
	10	-15466.262(*)	2566.698	.000	-24170.635	-6761.889
	11	-12366.921(*)	2191.391	.000	-19798.527	-4935.315
	12	-7574.078(*)	1438.932	.000	-12453.890	-2694.266
2	1	152.248	217.400	1.000	-585.016	889.511
	3	-294.842	187.253	1.000	-929.870	340.185
	4	-151.878	228.424	1.000	-926.525	622.769
	5	-2575.633(*)	415.664	.000	-3985.263	-1166.003
	6	-4254.944(*)	722.508	.000	-6705.165	-1804.724
	7	-8187.254(*)	1126.657	.000	-12008.055	-4366.454
	8	-11842.238(*)	1806.612	.000	-17968.953	-5715.522
	9	-15302.922(*)	2719.191	.000	-24524.442	-6081.401
	10	-15314.014(*)	2577.586	.000	-24055.314	-6572.714
	11	-12214.673(*)	2209.951	.000	-19709.220	-4720.127
	12	-7421.830(*)	1467.013	.000	-12396.871	-2446.789
3	1	447.090	323.667	1.000	-650.554	1544.734
	2	294.842	187.253	1.000	-340.185	929.870

4	4	142.965	146.744	1.000	-354.686	640.615
	5	-2280.791(*)	366.610	.000	-3524.066	-1037.517
	6	-3960.102(*)	671.741	.000	-6238.160	-1682.043
	7	-7892.412(*)	1098.064	.000	-11616.247	-4168.578
	8	-11547.395(*)	1796.375	.000	-17639.393	-5455.397
	9	-15008.079(*)	2702.135	.000	-24171.759	-5844.400
	10	-15019.172(*)	2573.528	.000	-23746.707	-6291.637
	11	-11919.831(*)	2210.737	.000	-19417.045	-4422.617
	12	-7126.988(*)	1489.423	.000	-12178.029	-2075.947
	1	304.126	330.075	1.000	-815.249	1423.500
	2	151.878	228.424	1.000	-622.769	926.525
	3	-142.965	146.744	1.000	-640.615	354.686
5	5	-2423.756(*)	326.467	.000	-3530.894	-1316.617
	6	-4103.066(*)	642.669	.000	-6282.533	-1923.599
	7	-8035.377(*)	1084.340	.000	-11712.670	-4358.084
	8	-11690.360(*)	1790.893	.000	-17763.766	-5616.953
	9	-15151.044(*)	2697.488	.000	-24298.964	-6003.123
	10	-15162.136(*)	2572.043	.000	-23884.637	-6439.636
	11	-12062.795(*)	2209.998	.000	-19557.503	-4568.088
	12	-7269.952(*)	1488.844	.000	-12319.029	-2220.875
	1	2727.881(*)	469.186	.000	1136.743	4319.020
	2	2575.633(*)	415.664	.000	1166.003	3985.263
	3	2280.791(*)	366.610	.000	1037.517	3524.066
	4	2423.756(*)	326.467	.000	1316.617	3530.894
6	6	-1679.311(*)	422.825	.006	-3113.226	-245.395
	7	-5611.621(*)	829.697	.000	-8425.350	-2797.892
	8	-9266.604(*)	1550.169	.000	-14523.651	-4009.557
	9	-12727.288(*)	2490.109	.000	-21171.929	-4282.648
	10	-12738.381(*)	2355.279	.000	-20725.776	-4750.985
	11	-9639.040(*)	2026.882	.000	-16512.749	-2765.330
	12	-4846.197(*)	1338.078	.022	-9383.984	-308.409
	1	4407.192(*)	728.935	.000	1935.174	6879.210
	2	4254.944(*)	722.508	.000	1804.724	6705.165

7	3	3960.102(*)	671.741	.000	1682.043	6238.160
	4	4103.066(*)	642.669	.000	1923.599	6282.533
	5	1679.311(*)	422.825	.006	245.395	3113.226
	7	-3932.310(*)	572.704	.000	-5874.506	-1990.115
	8	-7587.294(*)	1319.504	.000	-12062.093	-3112.494
	9	-11047.978(*)	2304.920	.000	-18864.591	-3231.365
	10	-11059.070(*)	2162.497	.000	-18392.688	-3725.453
	11	-7959.729(*)	1832.711	.001	-14174.952	-1744.507
	12	-3166.886	1208.793	.456	-7266.232	932.460
	1	8339.502(*)	1122.798	.000	4531.789	12147.216
	2	8187.254(*)	1126.657	.000	4366.454	12008.055
	3	7892.412(*)	1098.064	.000	4168.578	11616.247
8	4	8035.377(*)	1084.340	.000	4358.084	11712.670
	5	5611.621(*)	829.697	.000	2797.892	8425.350
	6	3932.310(*)	572.704	.000	1990.115	5874.506
	8	-3654.983(*)	866.110	.002	-6592.199	-717.767
	9	-7115.667(*)	1944.539	.019	-13710.131	-521.204
	10	-7126.760(*)	1770.763	.005	-13131.902	-1121.618
	11	-4027.419	1491.190	.382	-9084.452	1029.615
	12	765.424	1036.455	1.000	-2749.477	4280.326
	1	11994.485(*)	1793.499	.000	5912.241	18076.730
	2	11842.238(*)	1806.612	.000	5715.522	17968.953
	3	11547.395(*)	1796.375	.000	5455.397	17639.393
	4	11690.360(*)	1790.893	.000	5616.953	17763.766
	5	9266.604(*)	1550.169	.000	4009.557	14523.651
9	6	7587.294(*)	1319.504	.000	3112.494	12062.093
	7	3654.983(*)	866.110	.002	717.767	6592.199
	9	-3460.684	1348.406	.508	-8033.499	1112.131
	10	-3471.777	1240.871	.302	-7679.911	736.357
	11	-372.436	1031.034	1.000	-3868.952	3124.081
	12	4420.407(*)	1138.261	.008	560.254	8280.561
	1	15455.170(*)	2745.077	.000	6145.863	24764.476
	2	15302.922(*)	2719.191	.000	6081.401	24524.442



10	3	15008.079(*)	2702.135	.000	5844.400	24171.759
	4	15151.044(*)	2697.488	.000	6003.123	24298.964
	5	12727.288(*)	2490.109	.000	4282.648	21171.929
	6	11047.978(*)	2304.920	.000	3231.365	18864.591
	7	7115.667(*)	1944.539	.019	521.204	13710.131
	8	3460.684	1348.406	.508	-1112.131	8033.499
	10	-11.092	1184.657	1.000	-4028.589	4006.405
	11	3088.248	1364.551	.802	-1539.316	7715.813
	12	7881.092(*)	1911.483	.003	1398.732	14363.451
	1	15466.262(*)	2566.698	.000	6761.889	24170.635
	2	15314.014(*)	2577.586	.000	6572.714	24055.314
	3	15019.172(*)	2573.528	.000	6291.637	23746.707
11	4	15162.136(*)	2572.043	.000	6439.636	23884.637
	5	12738.381(*)	2355.279	.000	4750.985	20725.776
	6	11059.070(*)	2162.497	.000	3725.453	18392.688
	7	7126.760(*)	1770.763	.005	1121.618	13131.902
	8	3471.777	1240.871	.302	-736.357	7679.911
	9	11.092	1184.657	1.000	-4006.405	4028.589
	11	3099.341(*)	847.356	.019	225.724	5972.958
	12	7892.184(*)	1468.149	.000	2913.291	12871.077
	1	12366.921(*)	2191.391	.000	4935.315	19798.527
	2	12214.673(*)	2209.951	.000	4720.127	19709.220
	3	11919.831(*)	2210.737	.000	4422.617	19417.045
	4	12062.795(*)	2209.998	.000	4568.088	19557.503
12	5	9639.040(*)	2026.882	.000	2765.330	16512.749
	6	7959.729(*)	1832.711	.001	1744.507	14174.952
	7	4027.419	1491.190	.382	-1029.615	9084.452
	8	372.436	1031.034	1.000	-3124.081	3868.952
	9	-3088.248	1364.551	.802	-7715.813	1539.316
	10	-3099.341(*)	847.356	.019	-5972.958	-225.724
	12	4792.843(*)	979.308	.000	1471.743	8113.944
	1	7574.078(*)	1438.932	.000	2694.266	12453.890
	2	7421.830(*)	1467.013	.000	2446.789	12396.871

3	7126.988(*)	1489.423	.000	2075.947	12178.029
4	7269.952(*)	1488.844	.000	2220.875	12319.029
5	4846.197(*)	1338.078	.022	308.409	9383.984
6	3166.886	1208.793	.456	-932.460	7266.232
7	-765.424	1036.455	1.000	-4280.326	2749.477
8	-4420.407(*)	1138.261	.008	-8280.561	-560.254
9	-7881.092(*)	1911.483	.003	-14363.451	-1398.732
10	-7892.184(*)	1468.149	.000	-12871.077	-2913.291
11	-4792.843(*)	979.308	.000	-8113.944	-1471.743

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Corp Gov Level

### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	31960.863	2583.828	26878.721	37043.005
Medium	8586.020	1699.362	5243.538	11928.502
High	2395.585	4042.158	-5554.952	10346.123

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	41407831761.546	2	20703915880.773	33.346	.000	.163	1.000
Error	212963032006.898	343	620883475.239				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Corp Gov Level		(J) Total Corp Gov Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	Medium		23374.843(*)	3092.571	.000	15954.358	30795.328
	High		29565.278(*)	4797.417	.000	18054.094	41076.462
Medium	Low		-23374.843(*)	3092.571	.000	-30795.328	-15954.358
	High		6190.435	4384.845	.405	-4330.804	16711.673
High	Low		-29565.278(*)	4797.417	.000	-41076.462	-18054.094
	Medium		-6190.435	4384.845	.405	-16711.673	4330.804

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Total Corp Gov Level \* year

#### Estimates

Measure: MEASURE\_1

Total Corp Gov Level		Mean	Std. Error	95% Confidence Interval	
year				Lower Bound	Upper Bound
Low	1	16057.348	1303.839	13492.821	18621.874
	2	16142.444	1269.347	13645.761	18639.128
	3	17017.572	1273.465	14512.789	19522.355
	4	17099.581	1268.260	14605.035	19594.126
	5	22735.249	1680.445	19429.974	26040.524
	6	26941.215	2044.527	22919.826	30962.603
	7	36031.745	2748.318	30626.065	41437.424
	8	45142.082	3774.529	37717.944	52566.220

Medium	9	54003.944	5125.458	43922.658	64085.229
	10	54022.601	4844.159	44494.604	63550.597
	11	45138.649	4261.023	36757.625	53519.674
	12	33197.929	3122.576	27056.120	39339.737
	1	5159.231	857.524	3472.564	6845.898
	2	5393.664	834.839	3751.616	7035.711
	3	5577.251	837.547	3929.876	7224.625
	4	5165.433	834.124	3524.792	6806.074
	5	6451.914	1105.215	4278.063	8625.766
	6	7260.450	1344.668	4615.617	9905.283
	7	9253.030	1807.546	5697.760	12808.299
	8	11167.407	2482.476	6284.615	16050.200
High	9	12694.148	3370.970	6063.772	19324.524
	10	12680.171	3185.962	6413.688	18946.653
	11	12224.465	2802.439	6712.336	17736.594
	12	10005.077	2053.692	5965.662	14044.492
	1	1917.151	2039.734	-2094.811	5929.114
	2	2054.365	1985.775	-1851.463	5960.193
	3	1880.178	1992.217	-2038.321	5798.677
	4	1781.093	1984.074	-2121.391	5683.576
	5	2130.210	2628.900	-3040.584	7301.004
	6	2153.641	3198.472	-4137.447	8444.728
	7	2867.462	4299.488	-5589.219	11324.143
	8	2807.697	5904.899	-8806.675	14422.068
	9	2801.146	8018.301	-12970.085	18572.377
	10	2829.744	7578.234	-12075.917	17735.406
	11	2871.379	6665.973	-10239.952	15982.710
	12	2652.958	4884.979	-6955.329	12261.245

#### Multivariate Tests

Total Corp Gov Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.308	13.463(b)	11.000	333.000	.000	.308	1.000
	Wilks' lambda	.692	13.463(b)	11.000	333.000	.000	.308	1.000
	Hotelling's trace	.445	13.463(b)	11.000	333.000	.000	.308	1.000
	Roy's largest root	.445	13.463(b)	11.000	333.000	.000	.308	1.000
Medium	Pillai's trace	.086	2.857(b)	11.000	333.000	.001	.086	.982
	Wilks' lambda	.914	2.857(b)	11.000	333.000	.001	.086	.982
	Hotelling's trace	.094	2.857(b)	11.000	333.000	.001	.086	.982
	Roy's largest root	.094	2.857(b)	11.000	333.000	.001	.086	.982
High	Pillai's trace	.004	.107(b)	11.000	333.000	1.000	.004	.085
	Wilks' lambda	.996	.107(b)	11.000	333.000	1.000	.004	.085
	Hotelling's trace	.004	.107(b)	11.000	333.000	1.000	.004	.085
	Roy's largest root	.004	.107(b)	11.000	333.000	1.000	.004	.085

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

Total Corp Gov Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	1	2	-85.097	331.108	1.000	-1207.974	1037.780
		3	-960.224	492.956	.971	-2631.973	711.525
		4	-1042.233	502.715	.927	-2747.078	662.612
		5	-6677.901(*)	714.586	.000	-9101.259	-4254.543
		6	-10883.867(*)	1110.193	.000	-14648.833	-7118.901
		7	-19974.397(*)	1710.059	.000	-25773.673	-14175.121
		8	-29084.735(*)	2731.559	.000	-38348.197	-19821.272
		9	-37946.596(*)	4180.845	.000	-52124.983	-23768.210

2	10	-37965.253(*)	3909.167	.000	-51222.306	-24708.200
	11	-29081.302(*)	3337.562	.000	-40399.888	-17762.716
	12	-17140.581(*)	2191.542	.000	-24572.698	-9708.464
	1	85.097	331.108	1.000	-1037.780	1207.974
	3	-875.127	285.193	.142	-1842.295	92.040
	4	-957.136	347.897	.339	-2136.949	222.677
	5	-6592.804(*)	633.070	.000	-8739.718	-4445.891
	6	-10798.770(*)	1100.403	.000	-14530.539	-7067.002
	7	-19889.300(*)	1715.936	.000	-25708.509	-14070.092
	8	-28999.638(*)	2751.531	.000	-38330.832	-19668.444
	9	-37861.500(*)	4141.420	.000	-51906.186	-23816.813
	10	-37880.157(*)	3925.751	.000	-51193.450	-24566.863
3	11	-28996.205(*)	3365.829	.000	-40410.652	-17581.759
	12	-17055.484(*)	2234.310	.000	-24632.639	-9478.329
	1	960.224	492.956	.971	-711.525	2631.973
	2	875.127	285.193	.142	-92.040	1842.295
	4	-82.009	223.497	1.000	-839.947	675.929
	5	-5717.677(*)	558.359	.000	-7611.226	-3824.128
	6	-9923.643(*)	1023.085	.000	-13393.203	-6454.083
	7	-19014.173(*)	1672.388	.000	-24685.698	-13342.648
	8	-28124.510(*)	2735.939	.000	-37402.828	-18846.192
	9	-36986.372(*)	4115.443	.000	-50942.964	-23029.780
	10	-37005.029(*)	3919.569	.000	-50297.359	-23712.699
	11	-28121.078(*)	3367.027	.000	-39539.587	-16702.568
4	12	-16180.357(*)	2268.442	.000	-23873.262	-8487.452
	1	1042.233	502.715	.927	-662.612	2747.078
	2	957.136	347.897	.339	-222.677	2136.949
	3	82.009	223.497	1.000	-675.929	839.947
	5	-5635.668(*)	497.220	.000	-7321.877	-3949.460
	6	-9841.634(*)	978.807	.000	-13161.036	-6522.232
	7	-18932.164(*)	1651.486	.000	-24532.805	-13331.523
	8	-28042.501(*)	2727.590	.000	-37292.504	-18792.499
	9	-36904.363(*)	4108.366	.000	-50836.954	-22971.772

5	10	-36923.020(*)	3917.308	.000	-50207.682	-23638.359
	11	-28039.069(*)	3365.901	.000	-39453.760	-16624.377
	12	-16098.348(*)	2267.560	.000	-23788.262	-8408.434
	1	6677.901(*)	714.586	.000	4254.543	9101.259
	2	6592.804(*)	633.070	.000	4445.891	8739.718
	3	5717.677(*)	558.359	.000	3824.128	7611.226
	4	5635.668(*)	497.220	.000	3949.460	7321.877
	6	-4205.966(*)	643.977	.000	-6389.867	-2022.064
	7	-13296.496(*)	1263.656	.000	-17581.900	-9011.092
	8	-22406.833(*)	2360.960	.000	-30413.493	-14400.174
	9	-31268.695(*)	3792.520	.000	-44130.167	-18407.223
	10	-31287.352(*)	3587.170	.000	-43452.424	-19122.280
6	11	-22403.401(*)	3087.009	.000	-32872.292	-11934.510
	12	-10462.680(*)	2037.938	.000	-17373.883	-3551.477
	1	10883.867(*)	1110.193	.000	7118.901	14648.833
	2	10798.770(*)	1100.403	.000	7067.002	14530.539
	3	9923.643(*)	1023.085	.000	6454.083	13393.203
	4	9841.634(*)	978.807	.000	6522.232	13161.036
	5	4205.966(*)	643.977	.000	2022.064	6389.867
	7	-9090.530(*)	872.247	.000	-12048.560	-6132.501
	8	-18200.868(*)	2009.649	.000	-25016.138	-11385.597
	9	-27062.729(*)	3510.470	.000	-38967.694	-15157.765
	10	-27081.386(*)	3293.555	.000	-38250.732	-15912.040
	11	-18197.435(*)	2791.280	.000	-27663.428	-8731.442
7	12	-6256.714(*)	1841.032	.049	-12500.156	-13.272
	1	19974.397(*)	1710.059	.000	14175.121	25773.673
	2	19889.300(*)	1715.936	.000	14070.092	25708.509
	3	19014.173(*)	1672.388	.000	13342.648	24685.698
	4	18932.164(*)	1651.486	.000	13331.523	24532.805
	5	13296.496(*)	1263.656	.000	9011.092	17581.900
	6	9090.530(*)	872.247	.000	6132.501	12048.560
	8	-9110.337(*)	1319.115	.000	-13583.816	-4636.859
	9	-17972.199(*)	2961.598	.000	-28015.789	-7928.610

8	10	-17990.856(*)	2696.932	.000	-27136.890	-8844.823
	11	-9106.905(*)	2271.133	.005	-16808.937	-1404.872
	12	2833.816	1578.556	.994	-2519.497	8187.130
	1	29084.735(*)	2731.559	.000	19821.272	38348.197
	2	28999.638(*)	2751.531	.000	19668.444	38330.832
	3	28124.510(*)	2735.939	.000	18846.192	37402.828
	4	28042.501(*)	2727.590	.000	18792.499	37292.504
	5	22406.833(*)	2360.960	.000	14400.174	30413.493
	6	18200.868(*)	2009.649	.000	11385.597	25016.138
	7	9110.337(*)	1319.115	.000	4636.859	13583.816
	9	-8861.862(*)	2053.668	.001	-15826.413	-1897.311
	10	-8880.519(*)	1889.889	.000	-15289.649	-2471.389
9	11	3.433	1570.299	1.000	-5321.879	5328.745
	12	11944.153(*)	1733.609	.000	6065.010	17823.297
	1	37946.596(*)	4180.845	.000	23768.210	52124.983
	2	37861.500(*)	4141.420	.000	23816.813	51906.186
	3	36986.372(*)	4115.443	.000	23029.780	50942.964
	4	36904.363(*)	4108.366	.000	22971.772	50836.954
	5	31268.695(*)	3792.520	.000	18407.223	44130.167
	6	27062.729(*)	3510.470	.000	15157.765	38967.694
	7	17972.199(*)	2961.598	.000	7928.610	28015.789
	8	8861.862(*)	2053.668	.001	1897.311	15826.413
	10	-18.657	1804.273	1.000	-6137.440	6100.126
	11	8865.295(*)	2078.257	.002	1817.358	15913.231
10	12	20806.015(*)	2911.252	.000	10933.163	30678.867
	1	37965.253(*)	3909.167	.000	24708.200	51222.306
	2	37880.157(*)	3925.751	.000	24566.863	51193.450
	3	37005.029(*)	3919.569	.000	23712.699	50297.359
	4	36923.020(*)	3917.308	.000	23638.359	50207.682
	5	31287.352(*)	3587.170	.000	19122.280	43452.424
	6	27081.386(*)	3293.555	.000	15912.040	38250.732
	7	17990.856(*)	2696.932	.000	8844.823	27136.890
	8	8880.519(*)	1889.889	.000	2471.389	15289.649



Medium	11	9	18.657	1804.273	1.000	-6100.126	6137.440
		11	8883.951(*)	1290.552	.000	4507.336	13260.567
		12	20824.672(*)	2236.040	.000	13241.651	28407.694
		1	29081.302(*)	3337.562	.000	17762.716	40399.888
		2	28996.205(*)	3365.829	.000	17581.759	40410.652
		3	28121.078(*)	3367.027	.000	16702.568	39539.587
		4	28039.069(*)	3365.901	.000	16624.377	39453.760
		5	22403.401(*)	3087.009	.000	11934.510	32872.292
		6	18197.435(*)	2791.280	.000	8731.442	27663.428
		7	9106.905(*)	2271.133	.005	1404.872	16808.937
		8	-3.433	1570.299	1.000	-5328.745	5321.879
	12	9	-8865.295(*)	2078.257	.002	-15913.231	-1817.358
		10	-8883.951(*)	1290.552	.000	-13260.567	-4507.336
		12	11940.721(*)	1491.519	.000	6882.573	16998.869
		1	17140.581(*)	2191.542	.000	9708.464	24572.698
		2	17055.484(*)	2234.310	.000	9478.329	24632.639
		3	16180.357(*)	2268.442	.000	8487.452	23873.262
		4	16098.348(*)	2267.560	.000	8408.434	23788.262
		5	10462.680(*)	2037.938	.000	3551.477	17373.883
		6	6256.714(*)	1841.032	.049	13.272	12500.156
		7	-2833.816	1578.556	.994	-8187.130	2519.497
		8	-11944.153(*)	1733.609	.000	-17823.297	-6065.010
	1	9	-20806.015(*)	2911.252	.000	-30678.867	-10933.163
		10	-20824.672(*)	2236.040	.000	-28407.694	-13241.651
		11	-11940.721(*)	1491.519	.000	-16998.869	-6882.573
		2	-234.433	217.767	1.000	-972.940	504.074
		3	-418.020	324.213	1.000	-1517.515	681.475
		4	-6.202	330.632	1.000	-1127.464	1115.060
		5	-1292.684	469.977	.340	-2886.505	301.138
		6	-2101.219	730.164	.245	-4577.406	374.967
		7	-4093.799(*)	1124.691	.021	-7907.933	-279.664
		8	-6008.176	1796.523	.059	-12100.677	84.324
		9	-7534.917	2749.706	.348	-16859.922	1790.088

2	10	-7520.940	2571.026	.216	-16239.991	1198.112
	11	-7065.234	2195.086	.089	-14509.372	378.904
	12	-4845.846	1441.359	.055	-9733.887	42.194
	1	234.433	217.767	1.000	-504.074	972.940
	3	-183.587	187.569	1.000	-819.685	452.511
	4	228.231	228.809	1.000	-547.722	1004.184
	5	-1058.251	416.365	.533	-2470.258	353.756
	6	-1866.786	723.726	.495	-4321.139	587.566
	7	-3859.366(*)	1128.557	.045	-7686.610	-32.122
	8	-5773.744	1809.659	.097	-11910.791	363.304
	9	-7300.484	2723.777	.400	-16537.555	1936.587
	10	-7286.507	2581.933	.284	-16042.547	1469.534
3	11	-6830.801	2213.677	.135	-14337.986	676.384
	12	-4611.413	1469.487	.115	-9594.844	372.017
	1	418.020	324.213	1.000	-681.475	1517.515
	2	183.587	187.569	1.000	-452.511	819.685
	4	411.818	146.992	.299	-86.672	910.307
	5	-874.664	367.228	.694	-2120.035	370.707
	6	-1683.199	672.874	.574	-3965.099	598.701
	7	-3675.779	1099.916	.059	-7405.893	54.335
	8	-5590.157	1799.404	.127	-11692.428	512.114
	9	-7116.897	2706.692	.447	-16296.029	2062.235
	10	-7102.920	2577.867	.336	-15845.173	1639.333
	11	-6647.214	2214.465	.173	-14157.071	862.642
	12	-4427.826	1491.935	.191	-9487.385	631.732
4	1	6.202	330.632	1.000	-1115.060	1127.464
	2	-228.231	228.809	1.000	-1004.184	547.722
	3	-411.818	146.992	.299	-910.307	86.672
	5	-1286.481(*)	327.017	.007	-2395.486	-177.476
	6	-2095.017	643.753	.079	-4278.159	88.126
	7	-4087.597(*)	1086.168	.013	-7771.091	-404.103
	8	-6001.974	1793.913	.058	-12085.622	81.674
	9	-7528.715	2702.037	.311	-16692.062	1634.632

5	10	-7514.738	2576.380	.221	-16251.947	1222.472
	11	-7059.032	2213.725	.098	-14566.378	448.314
	12	-4839.644	1491.355	.082	-9897.235	217.948
	1	1292.684	469.977	.340	-301.138	2886.505
	2	1058.251	416.365	.533	-353.756	2470.258
	3	874.664	367.228	.694	-370.707	2120.035
	4	1286.481(*)	327.017	.007	177.476	2395.486
	6	-808.536	423.538	.979	-2244.869	627.798
	7	-2801.115	831.096	.054	-5619.589	17.359
	8	-4715.493	1552.783	.156	-9981.405	550.419
	9	-6242.234	2494.308	.573	-14701.115	2216.648
	10	-6228.256	2359.251	.437	-14229.121	1772.609
6	11	-5772.551	2030.300	.269	-12657.851	1112.750
	12	-3553.163	1340.334	.427	-8098.602	992.277
	1	2101.219	730.164	.245	-374.967	4577.406
	2	1866.786	723.726	.495	-587.566	4321.139
	3	1683.199	672.874	.574	-598.701	3965.099
	4	2095.017	643.753	.079	-88.126	4278.159
	5	808.536	423.538	.979	-627.798	2244.869
	7	-1992.580(*)	573.670	.038	-3938.051	-47.109
	8	-3906.957	1321.729	.198	-8389.303	575.388
	9	-5433.698	2308.807	.721	-13263.492	2396.096
	10	-5419.721	2166.143	.573	-12765.705	1926.264
	11	-4964.015	1835.801	.379	-11189.719	1261.688
7	12	-2744.627	1210.831	.799	-6850.886	1361.632
	1	4093.799(*)	1124.691	.021	279.664	7907.933
	2	3859.366(*)	1128.557	.045	32.122	7686.610
	3	3675.779	1099.916	.059	-54.335	7405.893
	4	4087.597(*)	1086.168	.013	404.103	7771.091
	5	2801.115	831.096	.054	-17.359	5619.589
	6	1992.580(*)	573.670	.038	47.109	3938.051
	8	-1914.378	867.571	.847	-4856.547	1027.791
	9	-3441.118	1947.818	.995	-10046.702	3164.465

8	10	-3427.141	1773.749	.975	-9442.410	2588.128
	11	-2971.435	1493.705	.960	-8036.997	2094.126
	12	-752.047	1038.203	1.000	-4272.876	2768.782
	1	6008.176	1796.523	.059	-84.324	12100.677
	2	5773.744	1809.659	.097	-363.304	11910.791
	3	5590.157	1799.404	.127	-512.114	11692.428
	4	6001.974	1793.913	.058	-81.674	12085.622
	5	4715.493	1552.783	.156	-550.419	9981.405
	6	3906.957	1321.729	.198	-575.388	8389.303
	7	1914.378	867.571	.847	-1027.791	4856.547
	9	-1526.741	1350.680	1.000	-6107.267	3053.786
	10	-1512.763	1242.964	1.000	-5727.994	2702.467
9	11	-1057.058	1032.772	1.000	-4559.470	2445.355
	12	1162.330	1140.180	1.000	-2704.332	5028.993
	1	7534.917	2749.706	.348	-1790.088	16859.922
	2	7300.484	2723.777	.400	-1936.587	16537.555
	3	7116.897	2706.692	.447	-2062.235	16296.029
	4	7528.715	2702.037	.311	-1634.632	16692.062
	5	6242.234	2494.308	.573	-2216.648	14701.115
	6	5433.698	2308.807	.721	-2396.096	13263.492
	7	3441.118	1947.818	.995	-3164.465	10046.702
	8	1526.741	1350.680	1.000	-3053.786	6107.267
	10	13.977	1186.655	1.000	-4010.294	4038.249
	11	469.683	1366.852	1.000	-4165.685	5105.051
10	12	2689.071	1914.706	1.000	-3804.220	9182.362
	1	7520.940	2571.026	.216	-1198.112	16239.991
	2	7286.507	2581.933	.284	-1469.534	16042.547
	3	7102.920	2577.867	.336	-1639.333	15845.173
	4	7514.738	2576.380	.221	-1222.472	16251.947
	5	6228.256	2359.251	.437	-1772.609	14229.121
	6	5419.721	2166.143	.573	-1926.264	12765.705
	7	3427.141	1773.749	.975	-2588.128	9442.410
	8	1512.763	1242.964	1.000	-2702.467	5727.994

High	11	9	-13.977	1186.655	1.000	-4038.249	4010.294
		11	455.706	848.785	1.000	-2422.757	3334.168
		12	2675.094	1470.624	.992	-2312.195	7662.383
		1	7065.234	2195.086	.089	-378.904	14509.372
		2	6830.801	2213.677	.135	-676.384	14337.986
		3	6647.214	2214.465	.173	-862.642	14157.071
		4	7059.032	2213.725	.098	-448.314	14566.378
		5	5772.551	2030.300	.269	-1112.750	12657.851
		6	4964.015	1835.801	.379	-1261.688	11189.719
		7	2971.435	1493.705	.960	-2094.126	8036.997
		8	1057.058	1032.772	1.000	-2445.355	4559.470
		9	-469.683	1366.852	1.000	-5105.051	4165.685
	12	10	-455.706	848.785	1.000	-3334.168	2422.757
		12	2219.388	980.959	.803	-1107.313	5546.089
		1	4845.846	1441.359	.055	-42.194	9733.887
		2	4611.413	1469.487	.115	-372.017	9594.844
		3	4427.826	1491.935	.191	-631.732	9487.385
		4	4839.644	1491.355	.082	-217.948	9897.235
		5	3553.163	1340.334	.427	-992.277	8098.602
		6	2744.627	1210.831	.799	-1361.632	6850.886
		7	752.047	1038.203	1.000	-2768.782	4272.876
		8	-1162.330	1140.180	1.000	-5028.993	2704.332
		9	-2689.071	1914.706	1.000	-9182.362	3804.220
		10	-2675.094	1470.624	.992	-7662.383	2312.195
	1	11	-2219.388	980.959	.803	-5546.089	1107.313
		2	-137.214	517.987	1.000	-1893.850	1619.423
		3	36.973	771.184	1.000	-2578.322	2652.268
		4	136.058	786.451	1.000	-2531.012	2803.129
		5	-213.059	1117.904	1.000	-4004.176	3578.058
		6	-236.490	1736.793	1.000	-6126.428	5653.449
		7	-950.311	2675.227	1.000	-10022.737	8122.115
		8	-890.545	4273.269	1.000	-15382.368	13601.278
		9	-883.995	6540.541	1.000	-23064.759	21296.768

2	10	-912.593	6115.527	1.000	-21652.016	19826.830
	11	-954.227	5221.305	1.000	-18661.099	16752.645
	12	-735.807	3428.463	1.000	-12362.662	10891.048
	1	137.214	517.987	1.000	-1619.423	1893.850
	3	174.187	446.158	1.000	-1338.857	1687.231
	4	273.272	544.252	1.000	-1572.435	2118.980
	5	-75.845	990.379	1.000	-3434.492	3282.801
	6	-99.276	1721.478	1.000	-5937.279	5738.728
	7	-813.097	2684.422	1.000	-9916.706	8290.512
	8	-753.332	4304.514	1.000	-15351.115	13844.451
	9	-746.781	6478.865	1.000	-22718.383	21224.820
	10	-775.379	6141.471	1.000	-21602.786	20052.027
3	11	-817.014	5265.526	1.000	-18673.851	17039.823
	12	-598.593	3495.369	1.000	-12452.345	11255.159
	1	-36.973	771.184	1.000	-2652.268	2578.322
	2	-174.187	446.158	1.000	-1687.231	1338.857
	4	99.085	349.640	1.000	-1086.639	1284.809
	5	-250.032	873.501	1.000	-3212.313	2712.248
	6	-273.463	1600.521	1.000	-5701.266	5154.340
	7	-987.284	2616.295	1.000	-9859.857	7885.288
	8	-927.519	4280.122	1.000	-15442.582	13587.544
	9	-920.969	6438.227	1.000	-22754.755	20912.818
	10	-949.567	6131.800	1.000	-21744.177	19845.044
	11	-991.201	5267.400	1.000	-18854.394	16871.992
4	12	-772.780	3548.765	1.000	-12807.613	11262.053
	1	-136.058	786.451	1.000	-2803.129	2531.012
	2	-273.272	544.252	1.000	-2118.980	1572.435
	3	-99.085	349.640	1.000	-1284.809	1086.639
	5	-349.117	777.854	1.000	-2987.033	2288.799
	6	-372.548	1531.252	1.000	-5565.442	4820.347
	7	-1086.369	2583.596	1.000	-9848.050	7675.311
	8	-1026.604	4267.060	1.000	-15497.370	13444.162
	9	-1020.054	6427.155	1.000	-22816.293	20776.185

5	10	-1048.652	6128.263	1.000	-21831.265	19733.962
	11	-1090.286	5265.639	1.000	-18947.506	16766.935
	12	-871.865	3547.386	1.000	-12902.019	11158.288
	1	213.059	1117.904	1.000	-3578.058	4004.176
	2	75.845	990.379	1.000	-3282.801	3434.492
	3	250.032	873.501	1.000	-2712.248	3212.313
	4	349.117	777.854	1.000	-2288.799	2987.033
	6	-23.431	1007.442	1.000	-3439.941	3393.080
	7	-737.252	1976.872	1.000	-7441.367	5966.863
	8	-677.486	3693.501	1.000	-13203.158	11848.185
	9	-670.936	5933.044	1.000	-20791.510	19449.637
	10	-699.534	5611.792	1.000	-19730.655	18331.587
6	11	-741.169	4829.338	1.000	-17118.772	15636.435
	12	-522.748	3188.163	1.000	-11334.681	10289.185
	1	236.490	1736.793	1.000	-5653.449	6126.428
	2	99.276	1721.478	1.000	-5738.728	5937.279
	3	273.463	1600.521	1.000	-5154.340	5701.266
	4	372.548	1531.252	1.000	-4820.347	5565.442
	5	23.431	1007.442	1.000	-3393.080	3439.941
	7	-713.821	1364.550	1.000	-5341.382	3913.740
	8	-654.056	3143.909	1.000	-11315.910	10007.799
	9	-647.506	5491.804	1.000	-19271.713	17976.701
	10	-676.104	5152.460	1.000	-18149.504	16797.297
	11	-717.738	4366.697	1.000	-15526.401	14090.925
7	12	-499.317	2880.123	1.000	-10266.600	9267.965
	1	950.311	2675.227	1.000	-8122.115	10022.737
	2	813.097	2684.422	1.000	-8290.512	9916.706
	3	987.284	2616.295	1.000	-7885.288	9859.857
	4	1086.369	2583.596	1.000	-7675.311	9848.050
	5	737.252	1976.872	1.000	-5966.863	7441.367
	6	713.821	1364.550	1.000	-3913.740	5341.382
	8	59.765	2063.632	1.000	-6938.575	7058.106
	9	66.316	4633.145	1.000	-15645.944	15778.575

8	10	37.718	4219.099	1.000	-14270.399	14345.834
	11	-3.917	3552.976	1.000	-12053.028	12045.195
	12	214.504	2469.503	1.000	-8160.256	8589.263
	1	890.545	4273.269	1.000	-13601.278	15382.368
	2	753.332	4304.514	1.000	-13844.451	15351.115
	3	927.519	4280.122	1.000	-13587.544	15442.582
	4	1026.604	4267.060	1.000	-13444.162	15497.370
	5	677.486	3693.501	1.000	-11848.185	13203.158
	6	654.056	3143.909	1.000	-10007.799	11315.910
	7	-59.765	2063.632	1.000	-7058.106	6938.575
	9	6.550	3212.773	1.000	-10888.840	10901.941
	10	-22.048	2956.555	1.000	-10048.534	10004.438
9	11	-63.682	2456.586	1.000	-8394.636	8267.272
	12	154.738	2712.070	1.000	-9042.633	9352.110
	1	883.995	6540.541	1.000	-21296.768	23064.759
	2	746.781	6478.865	1.000	-21224.820	22718.383
	3	920.969	6438.227	1.000	-20912.818	22754.755
	4	1020.054	6427.155	1.000	-20776.185	22816.293
	5	670.936	5933.044	1.000	-19449.637	20791.510
	6	647.506	5491.804	1.000	-17976.701	19271.713
	7	-66.316	4633.145	1.000	-15778.575	15645.944
	8	-6.550	3212.773	1.000	-10901.941	10888.840
	10	-28.598	2822.617	1.000	-9600.864	9543.668
	11	-70.232	3251.239	1.000	-11096.072	10955.607
10	12	148.188	4554.383	1.000	-15296.968	15593.344
	1	912.593	6115.527	1.000	-19826.830	21652.016
	2	775.379	6141.471	1.000	-20052.027	21602.786
	3	949.567	6131.800	1.000	-19845.044	21744.177
	4	1048.652	6128.263	1.000	-19733.962	21831.265
	5	699.534	5611.792	1.000	-18331.587	19730.655
	6	676.104	5152.460	1.000	-16797.297	18149.504
	7	-37.718	4219.099	1.000	-14345.834	14270.399
	8	22.048	2956.555	1.000	-10004.438	10048.534



11	9	28.598	2822.617	1.000	-9543.668	9600.864
	11	-41.634	2018.949	1.000	-6888.441	6805.172
	12	176.786	3498.076	1.000	-11686.144	12039.716
	1	954.227	5221.305	1.000	-16752.645	18661.099
	2	817.014	5265.526	1.000	-17039.823	18673.851
	3	991.201	5267.400	1.000	-16871.992	18854.394
	4	1090.286	5265.639	1.000	-16766.935	18947.506
	5	741.169	4829.338	1.000	-15636.435	17118.772
	6	717.738	4366.697	1.000	-14090.925	15526.401
	7	3.917	3552.976	1.000	-12045.195	12053.028
	8	63.682	2456.586	1.000	-8267.272	8394.636
12	9	70.232	3251.239	1.000	-10955.607	11096.072
	10	41.634	2018.949	1.000	-6805.172	6888.441
	12	218.420	2333.342	1.000	-7694.580	8131.421
	1	735.807	3428.463	1.000	-10891.048	12362.662
	2	598.593	3495.369	1.000	-11255.159	12452.345
	3	772.780	3548.765	1.000	-11262.053	12807.613
	4	871.865	3547.386	1.000	-11158.288	12902.019
	5	522.748	3188.163	1.000	-10289.185	11334.681
	6	499.317	2880.123	1.000	-9267.965	10266.600
	7	-214.504	2469.503	1.000	-8589.263	8160.256
	8	-154.738	2712.070	1.000	-9352.110	9042.633
	9	-148.188	4554.383	1.000	-15593.344	15296.968
	10	-176.786	3498.076	1.000	-12039.716	11686.144
	11	-218.420	2333.342	1.000	-8131.421	7694.580

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Total Corp Gov Level \* year

#### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	16057.348	1303.839	13492.821	18621.874
	2	16142.444	1269.347	13645.761	18639.128
	3	17017.572	1273.465	14512.789	19522.355
	4	17099.581	1268.260	14605.035	19594.126
	5	22735.249	1680.445	19429.974	26040.524
	6	26941.215	2044.527	22919.826	30962.603
	7	36031.745	2748.318	30626.065	41437.424
	8	45142.082	3774.529	37717.944	52566.220
	9	54003.944	5125.458	43922.658	64085.229
	10	54022.601	4844.159	44494.604	63550.597
	11	45138.649	4261.023	36757.625	53519.674
	12	33197.929	3122.576	27056.120	39339.737
Medium	1	5159.231	857.524	3472.564	6845.898
	2	5393.664	834.839	3751.616	7035.711
	3	5577.251	837.547	3929.876	7224.625
	4	5165.433	834.124	3524.792	6806.074
	5	6451.914	1105.215	4278.063	8625.766
	6	7260.450	1344.668	4615.617	9905.283
	7	9253.030	1807.546	5697.760	12808.299
	8	11167.407	2482.476	6284.615	16050.200
	9	12694.148	3370.970	6063.772	19324.524
	10	12680.171	3185.962	6413.688	18946.653
	11	12224.465	2802.439	6712.336	17736.594
	12	10005.077	2053.692	5965.662	14044.492
High	1	1917.151	2039.734	-2094.811	5929.114
	2	2054.365	1985.775	-1851.463	5960.193

3	1880.178	1992.217	-2038.321	5798.677
4	1781.093	1984.074	-2121.391	5683.576
5	2130.210	2628.900	-3040.584	7301.004
6	2153.641	3198.472	-4137.447	8444.728
7	2867.462	4299.488	-5589.219	11324.143
8	2807.697	5904.899	-8806.675	14422.068
9	2801.146	8018.301	-12970.085	18572.377
10	2829.744	7578.234	-12075.917	17735.406
11	2871.379	6665.973	-10239.952	15982.710
12	2652.958	4884.979	-6955.329	12261.245

#### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	9153950507.748	2	4576975253.874	28.950	.000	.144	1.000
	Error	54228172000.218	343	158099626.823				
2	Contrast	8967219709.372	2	4483609854.686	29.922	.000	.149	1.000
	Error	51396977557.594	343	149845415.620				
3	Contrast	10226642109.756	2	5113321054.878	33.904	.000	.165	1.000
	Error	51730989285.659	343	150819210.745				
4	Contrast	10897737686.103	2	5448868843.052	36.426	.000	.175	1.000
	Error	51308988606.349	343	149588888.065				
5	Contrast	20100080799.054	2	10050040399.527	38.268	.000	.182	1.000
	Error	90079454385.990	343	262622315.994				
6	Contrast	29275019207.780	2	14637509603.890	37.653	.000	.180	1.000
	Error	133340693215.205	343	388748376.721				
7	Contrast	53637228590.830	2	26818614295.415	38.179	.000	.182	1.000
	Error	240941255979.824	343	702452641.341				
8	Contrast	86660096205.536	2	43330048102.768	32.702	.000	.160	1.000
	Error	454467361230.736	343	1324977729.536				
9	Contrast	127705906564.069	2	63852953282.035	26.136	.000	.132	1.000

10	Error	837996978649.564	343	2443139879.445				
	Contrast	127831535420.077	2	63915767710.039	29.288	.000	.146	1.000
11	Error	748537890463.873	343	2182326211.265				
	Contrast	82918314379.021	2	41459157189.511	24.553	.000	.125	1.000
12	Error	579168360600.390	343	1688537494.462				
	Contrast	41891044196.710	2	20945522098.355	23.098	.000	.119	1.000
	Error	311030636061.343	343	906794857.322				

Each F tests the simple effects of Total Corp Gov Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Total Corp Gov Level	(J) Total Corp Gov Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	Low	Medium	10898.117(*)	1560.559	.000	7153.627	14642.607
		High	14140.196(*)	2420.850	.000	8331.477	19948.916
	Medium	Low	-10898.117(*)	1560.559	.000	-14642.607	-7153.627
		High	3242.080	2212.660	.372	-2067.098	8551.257
	High	Low	-14140.196(*)	2420.850	.000	-19948.916	-8331.477
		Medium	-3242.080	2212.660	.372	-8551.257	2067.098
2	Low	Medium	10748.781(*)	1519.275	.000	7103.349	14394.212
		High	14088.079(*)	2356.807	.000	8433.026	19743.132
	Medium	Low	-10748.781(*)	1519.275	.000	-14394.212	-7103.349
		High	3339.299	2154.125	.323	-1829.428	8508.025
	High	Low	-14088.079(*)	2356.807	.000	-19743.132	-8433.026
		Medium	-3339.299	2154.125	.323	-8508.025	1829.428
3	Low	Medium	11440.321(*)	1524.204	.000	7783.063	15097.579
		High	15137.394(*)	2364.453	.000	9463.995	20810.792
	Medium	Low	-11440.321(*)	1524.204	.000	-15097.579	-7783.063
		High	3697.073	2161.113	.242	-1488.421	8882.567

4	High	Low	-15137.394(*)	2364.453	.000	-20810.792	-9463.995
		Medium	-3697.073	2161.113	.242	-8882.567	1488.421
	Low	Medium	11934.148(*)	1517.974	.000	8291.838	15576.458
		High	15318.488(*)	2354.789	.000	9668.277	20968.698
	Medium	Low	-11934.148(*)	1517.974	.000	-15576.458	-8291.838
		High	3384.340	2152.281	.311	-1779.960	8548.640
	High	Low	-15318.488(*)	2354.789	.000	-20968.698	-9668.277
		Medium	-3384.340	2152.281	.311	-8548.640	1779.960
5	Low	Medium	16283.334(*)	2011.317	.000	11457.271	21109.398
		High	20605.039(*)	3120.098	.000	13118.505	28091.572
	Medium	Low	-16283.334(*)	2011.317	.000	-21109.398	-11457.271
		High	4321.704	2851.774	.343	-2520.998	11164.406
	High	Low	-20605.039(*)	3120.098	.000	-28091.572	-13118.505
		Medium	-4321.704	2851.774	.343	-11164.406	2520.998
	Low	Medium	19680.765(*)	2447.084	.000	13809.096	25552.433
		High	24787.574(*)	3796.091	.000	15679.024	33896.124
	Medium	Low	-19680.765(*)	2447.084	.000	-25552.433	-13809.096
		High	5106.809	3469.633	.368	-3218.418	13432.037
	High	Low	-24787.574(*)	3796.091	.000	-33896.124	-15679.024
		Medium	-5106.809	3469.633	.368	-13432.037	3218.418
7	Low	Medium	26778.715(*)	3289.449	.000	18885.830	34671.600
		High	33164.283(*)	5102.828	.000	20920.278	45408.287
	Medium	Low	-26778.715(*)	3289.449	.000	-34671.600	-18885.830
		High	6385.568	4663.992	.432	-4805.470	17576.605
	High	Low	-33164.283(*)	5102.828	.000	-45408.287	-20920.278
		Medium	-6385.568	4663.992	.432	-17576.605	4805.470
	Low	Medium	33974.675(*)	4517.716	.000	23134.619	44814.731
		High	42334.386(*)	7008.203	.000	25518.519	59150.252
	Medium	Low	-33974.675(*)	4517.716	.000	-44814.731	-23134.619
		High	8359.711	6405.507	.474	-7010.014	23729.436
	High	Low	-42334.386(*)	7008.203	.000	-59150.252	-25518.519
		Medium	-8359.711	6405.507	.474	-23729.436	7010.014
9	Low	Medium	41309.796(*)	6134.636	.000	26590.013	56029.579
		High	51202.797(*)	9516.484	.000	28368.423	74037.172
	Medium	Low	-41309.796(*)	6134.636	.000	-56029.579	-26590.013

10	High	High	9893.001	8698.080	.588	-10977.649	30763.652
		Low	-51202.797(*)	9516.484	.000	-74037.172	-28368.423
		Medium	-9893.001	8698.080	.588	-30763.652	10977.649
	Low	Medium	41342.430(*)	5797.950	.000	27430.510	55254.350
		High	51192.856(*)	8994.193	.000	29611.696	72774.017
		Low	-41342.430(*)	5797.950	.000	-55254.350	-27430.510
11	Medium	High	9850.426	8220.705	.546	-9874.784	29575.637
		Low	-51192.856(*)	8994.193	.000	-72774.017	-29611.696
		Medium	-9850.426	8220.705	.546	-29575.637	9874.784
	Low	Medium	32914.184(*)	5099.998	.000	20676.969	45151.399
		High	42267.271(*)	7911.480	.000	23284.032	61250.510
		Low	-32914.184(*)	5099.998	.000	-45151.399	-20676.969
12	Medium	High	9353.086	7231.104	.482	-7997.620	26703.793
		Low	-42267.271(*)	7911.480	.000	-61250.510	-23284.032
		Medium	-9353.086	7231.104	.482	-26703.793	7997.620
	Low	Medium	23192.852(*)	3737.397	.000	14225.137	32160.566
		High	30544.970(*)	5797.715	.000	16633.614	44456.327
		Low	-23192.852(*)	3737.397	.000	-32160.566	-14225.137
	High	High	7352.119	5299.120	.420	-5362.880	20067.118
		Low	-30544.970(*)	5797.715	.000	-44456.327	-16633.614
		Medium	-7352.119	5299.120	.420	-20067.118	5362.880

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 1	Low	93

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
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year	Linear	152783089086.171	1	152783089086.171	29.715	.000	.244	1.000
	Quadratic	8850006536.089	1	8850006536.089	16.612	.000	.153	.981
	Cubic	52851076924.270	1	52851076924.270	29.933	.000	.245	1.000

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 2	Medium	215

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	17909711468.289	1	17909711468.289	26.420	.000	.110	.999
	Quadratic	178263236.082	1	178263236.082	3.153	.077	.015	.424
	Cubic	3796450221.764	1	3796450221.764	22.077	.000	.094	.997

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 3	High	38

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	59553337.571	1	59553337.571	3.503	.069	.086	.446
	Quadratic	982872.278	1	982872.278	.761	.389	.020	.136

Cubic	12700942.874	1	12700942.874	5.780	.021	.135	.649
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a. Computed using alpha = .05

## General Linear Model with Level of Total CSR for Market Capitalization

### Between-Subjects Factors

		Value Label	N
Total CSR Level	1	Low	86
	2	Medium	172
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	141580139332.236	11	12870921757.476	42.248	.000	.110	1.000
	Greenhouse-Geisser	141580139332.236	1.440	98315659110.535	42.248	.000	.110	1.000
	Huynh-Feldt	141580139332.236	1.453	97445162123.370	42.248	.000	.110	1.000
	Lower-bound	141580139332.236	1.000	141580139332.236	42.248	.000	.110	1.000
year * CSRtot_level	Sphericity Assumed	11585481818.492	22	526612809.932	1.729	.019	.010	.981
	Greenhouse-Geisser	11585481818.492	2.880	4022577907.009	1.729	.162	.010	.442
	Huynh-Feldt	11585481818.492	2.906	3986961587.286	1.729	.162	.010	.444
	Lower-bound	11585481818.492	2.000	5792740909.246	1.729	.179	.010	.362
Error(year)	Sphericity Assumed	1149456686372.979	3773	304653243.142				
	Greenhouse-Geisser	1149456686372.979	493.940	2327120385.316				
	Huynh-Feldt	1149456686372.979	498.352	2306515821.378				



Lower-bound	1149456686372.979	343.000	3351185674.557				
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a Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	101614408559.433	1	101614408559.433	50.721	.000	.129	1.000
	Quadratic	3915444287.660	1	3915444287.660	20.326	.000	.056	.994
	Cubic	30708743619.842	1	30708743619.842	46.778	.000	.120	1.000
year * CSRtot_level	Linear	5777125260.076	2	2888562630.038	1.442	.238	.008	.308
	Quadratic	561534896.211	2	280767448.105	1.458	.234	.008	.311
	Cubic	2267432056.110	2	1133716028.055	1.727	.179	.010	.362
Error(year)	Linear	687167154881.476	343	2003402783.912				
	Quadratic	66073641327.982	343	192634522.822				
	Cubic	225171066665.394	343	656475413.019				

a Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRtot_level	47311975467.693	2	23655987733.847	2.700	.069	.015	.533
Error	3005138389753.626	343	8761336413.276				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	8279.974	762.785	6779.649	9780.299
2	8510.014	743.349	7047.917	9972.110
3	8880.161	751.986	7401.076	10359.245
4	8675.876	752.693	7195.401	10156.351
5	11133.961	1004.755	9157.705	13110.218
6	12926.777	1220.933	10525.319	15328.234
7	16816.480	1647.437	13576.128	20056.832
8	20764.865	2234.129	16370.548	25159.182
9	24941.222	2976.261	19087.203	30795.242
10	24396.788	2842.975	18804.928	29988.649
11	21656.209	2469.111	16799.704	26512.713
12	16486.451	1805.075	12936.041	20036.861

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
1	2	-230.039	179.954	1.000	-840.311	380.232
	3	-600.186	269.085	.829	-1512.728	312.355
	4	-395.902	274.566	1.000	-1327.031	535.227
	5	-2853.987(*)	412.553	.000	-4253.067	-1454.907
	6	-4646.802(*)	644.540	.000	-6832.615	-2460.990
	7	-8536.506(*)	1017.344	.000	-11986.597	-5086.415
	8	-12484.891(*)	1602.015	.000	-17917.760	-7052.022
	9	-16661.248(*)	2397.946	.000	-24793.337	-8529.159
	10	-16116.814(*)	2268.146	.000	-23808.717	-8424.911
	11	-13376.234(*)	1904.057	.000	-19833.411	-6919.057
	12	-8206.477(*)	1237.964	.000	-12404.750	-4008.204
2	1	230.039	179.954	1.000	-380.232	840.311
	3	-370.147	156.063	.704	-899.398	159.104
	4	-165.862	191.575	1.000	-815.545	483.821
	5	-2623.947(*)	372.803	.000	-3888.223	-1359.672
	6	-4416.763(*)	641.438	.000	-6592.055	-2241.470
	7	-8306.466(*)	1022.174	.000	-11772.937	-4839.996
	8	-12254.852(*)	1614.380	.000	-17729.656	-6780.048
	9	-16431.209(*)	2379.974	.000	-24502.351	-8360.067
	10	-15886.775(*)	2277.935	.000	-23611.875	-8161.674
	11	-13146.195(*)	1920.193	.000	-19658.092	-6634.297
	12	-7976.438(*)	1261.601	.000	-12254.870	-3698.005
3	1	600.186	269.085	.829	-312.355	1512.728
	2	370.147	156.063	.704	-159.104	899.398
	4	204.285	122.091	.999	-209.760	618.330
	5	-2253.801(*)	328.167	.000	-3366.704	-1140.897
	6	-4046.616(*)	595.555	.000	-6066.307	-2026.925
	7	-7936.320(*)	993.127	.000	-11304.286	-4568.354
	8	-11884.705(*)	1599.413	.000	-17308.753	-6460.657
	9	-16061.062(*)	2360.360	.000	-24065.688	-8056.436
	10	-15516.628(*)	2269.038	.000	-23211.557	-7821.699

4	11	-12776.048(*)	1915.826	.000	-19273.136	-6278.960
	12	-7606.291(*)	1275.233	.000	-11930.953	-3281.629
	1	395.902	274.566	1.000	-535.227	1327.031
	2	165.862	191.575	1.000	-483.821	815.545
	3	-204.285	122.091	.999	-618.330	209.760
	5	-2458.085(*)	293.785	.000	-3454.389	-1461.781
	6	-4250.901(*)	569.782	.000	-6183.187	-2318.615
	7	-8140.604(*)	978.937	.000	-11460.447	-4820.762
	8	-12088.990(*)	1592.131	.000	-17488.340	-6689.639
	9	-16265.347(*)	2354.355	.000	-24249.608	-8281.086
	10	-15720.912(*)	2264.576	.000	-23400.709	-8041.116
	11	-12980.333(*)	1912.689	.000	-19466.783	-6493.882
5	12	-7810.576(*)	1272.623	.000	-12126.388	-3494.763
	1	2853.987(*)	412.553	.000	1454.907	4253.067
	2	2623.947(*)	372.803	.000	1359.672	3888.223
	3	2253.801(*)	328.167	.000	1140.897	3366.704
	4	2458.085(*)	293.785	.000	1461.781	3454.389
	6	-1792.816(*)	361.556	.000	-3018.951	-566.680
	7	-5682.519(*)	740.386	.000	-8193.371	-3171.667
	8	-9630.904(*)	1365.292	.000	-14260.982	-5000.827
	9	-13807.261(*)	2155.445	.000	-21116.964	-6497.558
	10	-13262.827(*)	2057.538	.000	-20240.500	-6285.154
	11	-10522.247(*)	1735.931	.000	-16409.262	-4635.233
	12	-5352.490(*)	1127.253	.000	-9175.314	-1529.667
6	1	4646.802(*)	644.540	.000	2460.990	6832.615
	2	4416.763(*)	641.438	.000	2241.470	6592.055
	3	4046.616(*)	595.555	.000	2026.925	6066.307
	4	4250.901(*)	569.782	.000	2318.615	6183.187
	5	1792.816(*)	361.556	.000	566.680	3018.951
	7	-3889.703(*)	510.050	.000	-5619.421	-2159.986
	8	-7838.089(*)	1156.015	.000	-11758.452	-3917.725
	9	-12014.446(*)	1983.854	.000	-18742.238	-5286.654
	10	-11470.012(*)	1878.825	.000	-17841.619	-5098.404

7	11	-8729.432(*)	1559.259	.000	-14017.304	-3441.559
	12	-3559.675(*)	1009.445	.031	-6982.979	-136.370
	1	8536.506(*)	1017.344	.000	5086.415	11986.597
	2	8306.466(*)	1022.174	.000	4839.996	11772.937
	3	7936.320(*)	993.127	.000	4568.354	11304.286
	4	8140.604(*)	978.937	.000	4820.762	11460.447
	5	5682.519(*)	740.386	.000	3171.667	8193.371
	6	3889.703(*)	510.050	.000	2159.986	5619.421
	8	-3948.385(*)	741.417	.000	-6462.732	-1434.039
	9	-8124.742(*)	1646.486	.000	-13708.425	-2541.059
	10	-7580.308(*)	1515.171	.000	-12718.669	-2441.948
	11	-4839.728(*)	1247.084	.008	-9068.930	-610.527
8	12	330.029	865.599	1.000	-2605.453	3265.510
	1	12484.891(*)	1602.015	.000	7052.022	17917.760
	2	12254.852(*)	1614.380	.000	6780.048	17729.656
	3	11884.705(*)	1599.413	.000	6460.657	17308.753
	4	12088.990(*)	1592.131	.000	6689.639	17488.340
	5	9630.904(*)	1365.292	.000	5000.827	14260.982
	6	7838.089(*)	1156.015	.000	3917.725	11758.452
	7	3948.385(*)	741.417	.000	1434.039	6462.732
	9	-4176.357(*)	1126.714	.016	-7997.351	-355.363
	10	-3631.923(*)	1040.708	.035	-7161.249	-102.597
	11	-891.343	852.422	1.000	-3782.139	1999.452
	12	4278.414(*)	981.745	.001	949.047	7607.781
9	1	16661.248(*)	2397.946	.000	8529.159	24793.337
	2	16431.209(*)	2379.974	.000	8360.067	24502.351
	3	16061.062(*)	2360.360	.000	8056.436	24065.688
	4	16265.347(*)	2354.355	.000	8281.086	24249.608
	5	13807.261(*)	2155.445	.000	6497.558	21116.964
	6	12014.446(*)	1983.854	.000	5286.654	18742.238
	7	8124.742(*)	1646.486	.000	2541.059	13708.425
	8	4176.357(*)	1126.714	.016	355.363	7997.351
	10	544.434	967.035	1.000	-2735.047	3823.916

10	11	3285.014	1142.701	.247	-590.196	7160.224
	12	8454.771(*)	1640.355	.000	2891.880	14017.662
	1	16116.814(*)	2268.146	.000	8424.911	23808.717
	2	15886.775(*)	2277.935	.000	8161.674	23611.875
	3	15516.628(*)	2269.038	.000	7821.699	23211.557
	4	15720.912(*)	2264.576	.000	8041.116	23400.709
	5	13262.827(*)	2057.538	.000	6285.154	20240.500
	6	11470.012(*)	1878.825	.000	5098.404	17841.619
	7	7580.308(*)	1515.171	.000	2441.948	12718.669
	8	3631.923(*)	1040.708	.035	102.597	7161.249
11	9	-544.434	967.035	1.000	-3823.916	2735.047
	11	2740.580(*)	734.843	.015	248.526	5232.633
	12	7910.337(*)	1300.882	.000	3498.691	12321.982
	1	13376.234(*)	1904.057	.000	6919.057	19833.411
	2	13146.195(*)	1920.193	.000	6634.297	19658.092
	3	12776.048(*)	1915.826	.000	6278.960	19273.136
	4	12980.333(*)	1912.689	.000	6493.882	19466.783
	5	10522.247(*)	1735.931	.000	4635.233	16409.262
	6	8729.432(*)	1559.259	.000	3441.559	14017.304
	7	4839.728(*)	1247.084	.008	610.527	9068.930
12	8	891.343	852.422	1.000	-1999.452	3782.139
	9	-3285.014	1142.701	.247	-7160.224	590.196
	10	-2740.580(*)	734.843	.015	-5232.633	-248.526
	12	5169.757(*)	846.967	.000	2297.461	8042.053
	1	8206.477(*)	1237.964	.000	4008.204	12404.750
	2	7976.438(*)	1261.601	.000	3698.005	12254.870
	3	7606.291(*)	1275.233	.000	3281.629	11930.953
	4	7810.576(*)	1272.623	.000	3494.763	12126.388
	5	5352.490(*)	1127.253	.000	1529.667	9175.314
	6	3559.675(*)	1009.445	.031	136.370	6982.979
	7	-330.029	865.599	1.000	-3265.510	2605.453
	8	-4278.414(*)	981.745	.001	-7607.781	-949.047
	9	-8454.771(*)	1640.355	.000	-14017.662	-2891.880

10	-7910.337(*)	1300.882	.000	-12321.982	-3498.691
11	-5169.757(*)	846.967	.000	-8042.053	-2297.461

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	18180.883	2913.703	12449.908	23911.859
Medium	10826.613	2060.299	6774.201	14879.024
High	16859.699	2880.403	11194.222	22525.176

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total CSR Level	(J) Total CSR Level				Upper Bound	Lower Bound
Low	Medium	7354.271	3568.543	.115	-1208.288	15916.829
	High	1321.184	4097.119	.984	-8509.669	11152.037
Medium	Low	-7354.271	3568.543	.115	-15916.829	1208.288
	High	-6033.086	3541.406	.245	-14530.529	2464.356
High	Low	-1321.184	4097.119	.984	-11152.037	8509.669
	Medium	6033.086	3541.406	.245	-2464.356	14530.529

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	394266462 2.308	2	1971332311.1 54	2.700	.069	.015	.533
Error	250428199 146.136	343	730111367.77 3				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

Total CSR Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	10061.806	1453.906	7202.111	12921.500
	2	10046.932	1416.861	7260.103	12833.761
	3	10848.439	1433.323	8029.229	13667.649
	4	10528.731	1434.670	7706.871	13350.590
	5	13250.320	1915.113	9483.476	17017.164
	6	15405.581	2327.159	10828.282	19982.880
	7	19689.642	3140.099	13513.369	25865.916
	8	23223.634	4258.361	14847.845	31599.423
	9	28326.861	5672.902	17168.805	39484.917
	10	30470.741	5418.854	19812.374	41129.108
	11	26604.384	4706.250	17347.642	35861.127
	12	19713.525	3440.564	12946.266	26480.785
Medium	1	6067.025	1028.067	4044.916	8089.134
	2	6100.014	1001.872	4129.428	8070.599
	3	6315.766	1013.513	4322.283	8309.248
	4	5942.106	1014.465	3946.750	7937.462
	5	7971.698	1354.189	5308.137	10635.259
	6	9125.121	1645.550	5888.482	12361.760



High	7	12489.830	2220.385	8122.545	16857.115
	8	15124.065	3011.116	9201.488	21046.642
	9	15835.990	4011.348	7946.053	23725.927
	10	17595.931	3831.708	10059.328	25132.535
	11	15133.767	3327.821	8588.262	21679.272
	12	12218.038	2432.846	7432.863	17003.213
	1	8711.092	1437.290	5884.081	11538.103
	2	9383.095	1400.667	6628.116	12138.073
	3	9476.277	1416.942	6689.288	12263.266
	4	9556.791	1418.274	6767.183	12346.399
	5	12179.866	1893.225	8456.073	15903.659
	6	14249.628	2300.562	9724.643	18774.613
	7	18269.968	3104.211	12164.283	24375.653
	8	23946.898	4209.693	15666.835	32226.960
	9	30660.817	5608.067	19630.286	41691.348
	10	25123.692	5356.922	14587.139	35660.245
	11	23230.474	4652.462	14079.527	32381.422
	12	17527.791	3401.242	10837.874	24217.708

## APPENDIX S

### Complete Mixed Model ANOVAs with Post Hoc Tests of CFP Analyses for Market Capitalization Annual Growth

#### ***General Linear Model with Level of Community Relations for Market Capitalization Annual Growth***

##### Between-Subjects Factors

		Value Label	N
Total Community Level	1	Low	183
	2	Medium	86
	3	High	77

##### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	24856696783.706	10	2485669678.371	17.872	.000	.050	1.000
	Greenhouse-Geisser	24856696783.706	2.793	8900252494.635	17.872	.000	.050	1.000
	Huynh-Feldt	24856696783.706	2.834	8769392749.477	17.872	.000	.050	1.000
	Lower-bound	24856696783.706	1	24856696783.706	17.872	.000	.050	.988
year * comtot_lvl	Sphericity Assumed	4762999209.205	20	238149960.460	1.712	.025	.010	.971
	Greenhouse-Geisser	4762999209.205	5.586	852725846.128	1.712	.121	.010	.631
	Huynh-Feldt	4762999209.205	5.669	840188281.943	1.712	.119	.010	.636
	Lower-bound	4762999209.205	2	2381499604.603	1.712	.182	.010	.359

Error(year)	Sphericity Assumed	477058373142.110	3430	139084073.802				
	Greenhouse-Geisser	477058373142.110	957.933	498007995.831				
	Huynh-Feldt	477058373142.110	972.228	490685821.605				
	Lower-bound	477058373142.110	343	1390840738.024				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3109592374.618	1	3109592374.618	34.495	.000	.091	1.000
	Quadratic	16887406399.733	1	16887406399.733	44.734	.000	.115	1.000
	Cubic	2272064698.713	1	2272064698.713	15.974	.000	.044	.979
year * comtot_lvl	Linear	137934853.192	2	68967426.596	.765	.466	.004	.180
	Quadratic	1506501332.036	2	753250666.018	1.995	.138	.012	.411
	Cubic	34244694.320	2	17122347.160	.120	.887	.001	.068
Error(year)	Linear	30920231066.952	343	90146446.259				
	Quadratic	129485138757.627	343	377507693.171				
	Cubic	48786527041.226	343	142234772.715				

a. Computed using alpha = .05

#### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
comtot_lvl	271457369.515	2	135728684.757	3.159	.044	.018	.604
Error	14736662127.908	343	42964029.527				

a Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	109.879	183.571	-251.186	470.945
2	277.381	159.483	-36.308	591.069
3	-251.052	125.015	-496.944	-5.160
4	2714.771	296.009	2132.551	3296.992
5	1787.441	365.098	1069.328	2505.554
6	4399.994	510.884	3395.133	5404.854
7	4182.471	756.762	2693.993	5670.949
8	2942.798	1159.721	661.737	5223.858
9	336.947	1002.973	-1635.805	2309.698
10	-3115.266	746.621	-4583.797	-1646.734
11	-4861.272	868.492	-6569.513	-3153.032

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)
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		(I-J)			Upper Bound	Lower Bound
1	2	-167.501	209.045	1.000	-865.570	530.567
	3	360.931	241.885	1.000	-446.801	1168.663
	4	-2604.892(*)	357.102	.000	-3797.370	-1412.414
	5	-1677.562(*)	438.805	.009	-3142.870	-212.253
	6	-4290.114(*)	552.501	.000	-6135.090	-2445.139
	7	-4072.592(*)	795.872	.000	-6730.259	-1414.924
	8	-2832.918	1116.403	.474	-6560.940	895.104
	9	-227.067	1085.821	1.000	-3852.969	3398.834
	10	3225.145(*)	779.436	.002	622.362	5827.929
	11	4971.151(*)	888.283	.000	2004.893	7937.410
2	1	167.501	209.045	1.000	-530.567	865.570
	3	528.433	208.997	.482	-169.473	1226.339
	4	-2437.391(*)	319.162	.000	-3503.174	-1371.607
	5	-1510.060(*)	360.176	.002	-2712.803	-307.317
	6	-4122.613(*)	530.382	.000	-5893.727	-2351.499
	7	-3905.090(*)	779.814	.000	-6509.137	-1301.044
	8	-2665.417	1150.832	.691	-6508.410	1177.576
	9	-59.566	1039.502	1.000	-3530.793	3411.661
	10	3392.647(*)	779.907	.001	788.290	5997.003
	11	5138.653(*)	915.191	.000	2082.540	8194.766
3	1	-360.931	241.885	1.000	-1168.663	446.801
	2	-528.433	208.997	.482	-1226.339	169.473
	4	-2965.823(*)	310.201	.000	-4001.683	-1929.964
	5	-2038.493(*)	374.666	.000	-3289.622	-787.364
	6	-4651.046(*)	528.298	.000	-6415.198	-2886.893
	7	-4433.523(*)	769.179	.000	-7002.055	-1864.991
	8	-3193.850	1162.766	.295	-7076.694	688.995
	9	-587.999	1017.326	1.000	-3985.173	2809.175
	10	2864.214(*)	763.048	.011	316.154	5412.273
	11	4610.220(*)	880.736	.000	1669.163	7551.277
4	1	2604.892(*)	357.102	.000	1412.414	3797.370

5	2	2437.391(*)	319.162	.000	1371.607	3503.174
	3	2965.823(*)	310.201	.000	1929.964	4001.683
	5	927.330	332.408	.264	-182.685	2037.346
	6	-1685.222(*)	363.985	.000	-2900.683	-469.762
	7	-1467.700	628.308	.672	-3565.818	630.419
	8	-228.026	1088.322	1.000	-3862.277	3406.225
	9	2377.825	1051.150	.742	-1132.298	5887.947
	10	5830.037(*)	948.837	.000	2661.568	8998.506
	11	7576.043(*)	1072.507	.000	3994.604	11157.483
	1	1677.562(*)	438.805	.009	212.253	3142.870
	2	1510.060(*)	360.176	.002	307.317	2712.803
6	3	2038.493(*)	374.666	.000	787.364	3289.622
	4	-927.330	332.408	.264	-2037.346	182.685
	6	-2612.553(*)	488.570	.000	-4244.043	-981.062
	7	-2395.030(*)	676.091	.025	-4652.711	-137.349
	8	-1155.357	1127.979	1.000	-4922.036	2611.322
	9	1450.494	1077.298	1.000	-2146.944	5047.933
	10	4902.707(*)	906.991	.000	1873.976	7931.437
	11	6648.713(*)	1108.783	.000	2946.136	10351.291
	1	4290.114(*)	552.501	.000	2445.139	6135.090
	2	4122.613(*)	530.382	.000	2351.499	5893.727
	3	4651.046(*)	528.298	.000	2886.893	6415.198
7	4	1685.222(*)	363.985	.000	469.762	2900.683
	5	2612.553(*)	488.570	.000	981.062	4244.043
	7	217.523	545.507	1.000	-1604.099	2039.144
	8	1457.196	1061.908	1.000	-2088.852	5003.244
	9	4063.047(*)	1129.163	.020	292.415	7833.679
	10	7515.260(*)	1089.548	.000	3876.914	11153.605
	11	9261.266(*)	1280.792	.000	4984.296	13538.236
	1	4072.592(*)	795.872	.000	1414.924	6730.259
	2	3905.090(*)	779.814	.000	1301.044	6509.137
	3	4433.523(*)	769.179	.000	1864.991	7002.055
	4	1467.700	628.308	.672	-630.419	3565.818

8	5	2395.030(*)	676.091	.025	137.349	4652.711
	6	-217.523	545.507	1.000	-2039.144	1604.099
	8	1239.673	977.986	1.000	-2026.131	4505.477
	9	3845.524	1360.870	.241	-698.851	8389.899
	10	7297.737(*)	1232.532	.000	3181.922	11413.552
	11	9043.743(*)	1555.209	.000	3850.408	14237.078
	1	2832.918	1116.403	.474	-895.104	6560.940
	2	2665.417	1150.832	.691	-1177.576	6508.410
	3	3193.850	1162.766	.295	-688.995	7076.694
	4	228.026	1088.322	1.000	-3406.225	3862.277
	5	1155.357	1127.979	1.000	-2611.322	4922.036
9	6	-1457.196	1061.908	1.000	-5003.244	2088.852
	7	-1239.673	977.986	1.000	-4505.477	2026.131
	9	2605.851	1885.017	1.000	-3688.818	8900.520
	10	6058.064(*)	1632.586	.013	606.341	11509.786
	11	7804.070(*)	1826.041	.001	1706.339	13901.800
	1	227.067	1085.821	1.000	-3398.834	3852.969
	2	59.566	1039.502	1.000	-3411.661	3530.793
	3	587.999	1017.326	1.000	-2809.175	3985.173
	4	-2377.825	1051.150	.742	-5887.947	1132.298
	5	-1450.494	1077.298	1.000	-5047.933	2146.944
	6	-4063.047(*)	1129.163	.020	-7833.679	-292.415
10	7	-3845.524	1360.870	.241	-8389.899	698.851
	8	-2605.851	1885.017	1.000	-8900.520	3688.818
	10	3452.213	1323.441	.408	-967.176	7871.601
	11	5198.219(*)	1222.438	.002	1116.110	9280.327
	1	-3225.145(*)	779.436	.002	-5827.929	-622.362
	2	-3392.647(*)	779.907	.001	-5997.003	-788.290
	3	-2864.214(*)	763.048	.011	-5412.273	-316.154
	4	-5830.037(*)	948.837	.000	-8998.506	-2661.568
	5	-4902.707(*)	906.991	.000	-7931.437	-1873.976
	6	-7515.260(*)	1089.548	.000	-11153.605	-3876.914
	7	-7297.737(*)	1232.532	.000	-11413.552	-3181.922

11	8	-6058.064(*)	1632.586	.013	-11509.786	-606.341
	9	-3452.213	1323.441	.408	-7871.601	967.176
	11	1746.006	922.234	.965	-1333.627	4825.639
	1	-4971.151(*)	888.283	.000	-7937.410	-2004.893
	2	-5138.653(*)	915.191	.000	-8194.766	-2082.540
	3	-4610.220(*)	880.736	.000	-7551.277	-1669.163
	4	-7576.043(*)	1072.507	.000	-11157.483	-3994.604
	5	-6648.713(*)	1108.783	.000	-10351.291	-2946.136
	6	-9261.266(*)	1280.792	.000	-13538.236	-4984.296
	7	-9043.743(*)	1555.209	.000	-14237.078	-3850.408
	8	-7804.070(*)	1826.041	.001	-13901.800	-1706.339
	9	-5198.219(*)	1222.438	.002	-9280.327	-1116.110
	10	-1746.006	922.234	.965	-4825.639	1333.627

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Community Level

### Estimates

Measure: MEASURE\_1

Total Community Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	546.694	146.093	259.342	834.045
Medium	579.613	213.112	160.443	998.783
High	1198.446	225.222	755.456	1641.436

### Pairwise Comparisons



Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Community Level	(J) Total Community Level				Upper Bound	Lower Bound
Low	Medium	-32.919	258.379	.999	-652.888	587.050
	High	-651.752(*)	268.455	.046	-1295.899	-7.606
Medium	Low	32.919	258.379	.999	-587.050	652.888
	High	-618.833	310.067	.134	-1362.825	125.158
High	Low	651.752(*)	268.455	.046	7.606	1295.899
	Medium	618.833	310.067	.134	-125.158	1362.825

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	24677942.683	2	12338971.342	3.159	.044	.018	.604
Error	1339696557.083	343	3905820.866				

The F tests the effect of Total Community Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Community Level \* year

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Community Level	year			Lower Bound	Upper Bound
Low	1	321.31	234.728	-140.378	782.995
	2	424.24	203.928	23.136	825.349

Medium	3	-212.81	159.853	-527.224	101.609
	4	1507.78	378.500	763.310	2252.255
	5	1406.59	466.843	488.354	2324.824
	6	2354.20	653.256	1069.308	3639.093
	7	2344.20	967.654	440.912	4247.479
	8	4163.16	1482.910	1246.421	7079.904
	9	-669.05	1282.479	-3191.558	1853.468
	10	-1467.85	954.687	-3345.625	409.932
	11	-4158.15	1110.521	-6342.440	-1973.862
	1	454.49	342.405	-218.993	1127.964
	2	577.14	297.476	-7.966	1162.249
High	3	-458.73	233.184	-917.383	-.084
	4	3004.45	552.131	1918.457	4090.433
	5	431.45	681.000	-908.014	1770.908
	6	3889.49	952.928	2015.169	5763.804
	7	4660.66	1411.551	1884.275	7437.047
	8	3452.44	2163.172	-802.312	7707.192
	9	-788.80	1870.797	-4468.482	2890.873
	10	-5264.88	1392.635	-8004.062	-2525.701
	11	-3581.95	1619.956	-6768.246	-395.649
	1	-446.16	361.863	-1157.906	265.594
	2	-169.24	314.381	-787.599	449.116
	3	-81.62	246.435	-566.329	403.098
	4	3632.09	583.506	2484.385	4779.788
	5	3524.29	719.699	2108.709	4939.866
	6	6956.29	1007.079	4975.465	8937.123
	7	5542.56	1491.765	2608.397	8476.716
	8	1212.79	2286.098	-3283.746	5709.327
	9	2468.69	1977.108	-1420.093	6357.472
	10	-2613.07	1471.775	-5507.908	281.771
	11	-6843.72	1712.013	-10211.083	-3476.352

## General Linear Model with Level of Diversity for Market Capitalization Annual Growth

### Between-Subjects Factors

		Value Label	N
Total Diversity Level	1	Low	116
	2	Medium	143
	3	High	87

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	28710721046.830	10	2871072104.683	21.123	.000	.058	1.000
	Greenhouse-Geisser	28710721046.830	2.843	10098311308.134	21.123	.000	.058	1.000
	Huynh-Feldt	28710721046.830	2.886	9948000003.114	21.123	.000	.058	1.000
	Lower-bound	28710721046.830	1.000	28710721046.830	21.123	.000	.058	.996
year * divtot_lvl	Sphericity Assumed	15613379405.112	20	780668970.256	5.744	.000	.032	1.000
	Greenhouse-Geisser	15613379405.112	5.686	2745816894.457	5.744	.000	.032	.997
	Huynh-Feldt	15613379405.112	5.772	2704945969.789	5.744	.000	.032	.997
	Lower-bound	15613379405.112	2.000	7806689702.556	5.744	.004	.032	.865
Error(year)	Sphericity Assumed	466207992946.203	3430	135920697.652				
	Greenhouse-Geisser	466207992946.203	975.191	478068633.619				
	Huynh-Feldt	466207992946.203	989.925	470952679.475				
	Lower-bound	466207992946.203	343.000	1359206976.520				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3845086614.261	1	3845086614.261	45.858	.000	.118	1.000
	Quadratic	19053528498.186	1	19053528498.186	53.801	.000	.136	1.000
	Cubic	2732217132.718	1	2732217132.718	19.457	.000	.054	.993
year * divtot_lvl	Linear	2298198835.492	2	1149099417.746	13.705	.000	.074	.998
	Quadratic	9519869331.272	2	4759934665.636	13.441	.000	.073	.998
	Cubic	654862708.471	2	327431354.235	2.332	.099	.013	.471
Error(year)	Linear	28759967084.652	343	83848300.538				
	Quadratic	121471770758.391	343	354145104.252				
	Cubic	48165909027.076	343	140425390.750				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
divtot_lvl	686071321.268	2	343035660.634	8.215	.000	.046	.960
Error	14322048176.155	343	41755242.496				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	165.448	175.211	-179.176	510.072
2	358.652	151.962	59.757	657.546
3	-232.716	118.863	-466.509	1.077
4	2670.122	266.082	2146.765	3193.479
5	1788.691	346.429	1107.298	2470.083
6	4333.121	460.214	3427.924	5238.318
7	4033.241	702.663	2651.170	5415.311
8	3480.054	1096.833	1322.688	5637.420
9	-116.298	954.047	-1992.818	1760.222
10	-3113.212	696.498	-4483.157	-1743.268
11	-5038.286	810.597	-6632.653	-3443.920

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-193.203	198.094	1.000	-854.701	468.294
	3	398.164	230.832	.993	-372.657	1168.985
	4	-2504.674(*)	327.918	.000	-3599.696	-1409.652
	5	-1623.243(*)	419.049	.007	-3022.580	-223.905
	6	-4167.673(*)	503.913	.000	-5850.400	-2484.946
	7	-3867.792(*)	741.405	.000	-6343.579	-1392.006
	8	-3314.606	1054.533	.095	-6836.025	206.814
	9	281.746	1034.159	1.000	-3171.638	3735.129
	10	3278.661(*)	729.511	.001	842.593	5714.729
	11	5203.734(*)	828.956	.000	2435.587	7971.882
2	1	193.203	198.094	1.000	-468.294	854.701

3	3	591.368	199.521	.164	-74.895	1257.630
	4	-2311.471(*)	293.348	.000	-3291.053	-1331.888
	5	-1430.039(*)	345.601	.002	-2584.110	-275.968
	6	-3974.470(*)	485.042	.000	-5594.178	-2354.762
	7	-3674.589(*)	727.268	.000	-6103.166	-1246.012
	8	-3121.402	1087.987	.214	-6754.534	511.729
	9	474.949	989.583	1.000	-2829.582	3779.481
	10	3471.864(*)	727.850	.000	1041.342	5902.386
	11	5396.938(*)	853.460	.000	2546.965	8246.911
	1	-398.164	230.832	.993	-1168.985	372.657
	2	-591.368	199.521	.164	-1257.630	74.895
4	4	-2902.838(*)	281.405	.000	-3842.538	-1963.139
	5	-2021.407(*)	354.879	.000	-3206.459	-836.355
	6	-4565.837(*)	478.192	.000	-6162.671	-2969.003
	7	-4265.957(*)	715.298	.000	-6654.563	-1877.351
	8	-3712.770(*)	1100.086	.044	-7386.306	-39.234
	9	-116.418	967.182	1.000	-3346.144	3113.307
	10	2880.496(*)	711.132	.003	505.801	5255.192
	11	4805.570(*)	822.436	.000	2059.196	7551.944
	1	2504.674(*)	327.918	.000	1409.652	3599.696
	2	2311.471(*)	293.348	.000	1331.888	3291.053
	3	2902.838(*)	281.405	.000	1963.139	3842.538
5	5	881.431	317.643	.275	-179.278	1942.141
	6	-1662.999(*)	340.973	.000	-2801.616	-524.382
	7	-1363.118	592.466	.706	-3341.551	615.314
	8	-809.932	1037.102	1.000	-4273.145	2653.281
	9	2786.420	988.666	.245	-515.049	6087.889
	10	5783.335(*)	871.344	.000	2873.642	8693.027
	11	7708.409(*)	988.107	.000	4408.805	11008.012
	1	1623.243(*)	419.049	.007	223.905	3022.580
	2	1430.039(*)	345.601	.002	275.968	2584.110
	3	2021.407(*)	354.879	.000	836.355	3206.459
	4	-881.431	317.643	.275	-1942.141	179.278

6	6	-2544.430(*)	451.867	.000	-4053.358	-1035.503
	7	-2244.550(*)	637.149	.026	-4372.191	-116.909
	8	-1691.363	1075.502	.999	-5282.805	1900.079
	9	1904.989	1017.959	.971	-1494.299	5304.276
	10	4901.903(*)	837.277	.000	2105.970	7697.837
	11	6826.977(*)	1035.842	.000	3367.973	10285.981
	1	4167.673(*)	503.913	.000	2484.946	5850.400
	2	3974.470(*)	485.042	.000	2354.762	5594.178
	3	4565.837(*)	478.192	.000	2969.003	6162.671
	4	1662.999(*)	340.973	.000	524.382	2801.616
	5	2544.430(*)	451.867	.000	1035.503	4053.358
7	7	299.881	516.631	1.000	-1425.314	2025.075
	8	853.067	1015.100	1.000	-2536.674	4242.808
	9	4449.419(*)	1049.211	.002	945.771	7953.067
	10	7446.334(*)	988.844	.000	4144.269	10748.398
	11	9371.408(*)	1176.856	.000	5441.513	13301.302
	1	3867.792(*)	741.405	.000	1392.006	6343.579
	2	3674.589(*)	727.268	.000	1246.012	6103.166
	3	4265.957(*)	715.298	.000	1877.351	6654.563
	4	1363.118	592.466	.706	-615.314	3341.551
	5	2244.550(*)	637.149	.026	116.909	4372.191
	6	-299.881	516.631	1.000	-2025.075	1425.314
8	8	553.187	935.825	1.000	-2571.829	3678.203
	9	4149.538	1276.215	.067	-112.147	8411.224
	10	7146.453(*)	1134.113	.000	3359.292	10933.614
	11	9071.527(*)	1444.073	.000	4249.311	13893.743
	1	3314.606	1054.533	.095	-206.814	6836.025
	2	3121.402	1087.987	.214	-511.729	6754.534
	3	3712.770(*)	1100.086	.044	39.234	7386.306
	4	809.932	1037.102	1.000	-2653.281	4273.145
	5	1691.363	1075.502	.999	-1900.079	5282.805
	6	-853.067	1015.100	1.000	-4242.808	2536.674
	7	-553.187	935.825	1.000	-3678.203	2571.829

9	9	3596.352	1788.181	.921	-2374.951	9567.654
	10	6593.266(*)	1530.245	.001	1483.293	11703.240
	11	8518.340(*)	1711.925	.000	2801.679	14235.002
	1	-281.746	1034.159	1.000	-3735.129	3171.638
	2	-474.949	989.583	1.000	-3779.481	2829.582
	3	116.418	967.182	1.000	-3113.307	3346.144
	4	-2786.420	988.666	.245	-6087.889	515.049
	5	-1904.989	1017.959	.971	-5304.276	1494.299
	6	-4449.419(*)	1049.211	.002	-7953.067	-945.771
	7	-4149.538	1276.215	.067	-8411.224	112.147
10	8	-3596.352	1788.181	.921	-9567.654	2374.951
	10	2996.915	1255.796	.622	-1196.586	7190.415
	11	4921.989(*)	1162.233	.002	1040.925	8803.053
	1	-3278.661(*)	729.511	.001	-5714.729	-842.593
	2	-3471.864(*)	727.850	.000	-5902.386	-1041.342
	3	-2880.496(*)	711.132	.003	-5255.192	-505.801
	4	-5783.335(*)	871.344	.000	-8693.027	-2873.642
	5	-4901.903(*)	837.277	.000	-7697.837	-2105.970
	6	-7446.334(*)	988.844	.000	-10748.398	-4144.269
	7	-7146.453(*)	1134.113	.000	-10933.614	-3359.292
11	8	-6593.266(*)	1530.245	.001	-11703.240	-1483.293
	9	-2996.915	1255.796	.622	-7190.415	1196.586
	11	1925.074	883.473	.813	-1025.123	4875.270
	1	-5203.734(*)	828.956	.000	-7971.882	-2435.587
	2	-5396.938(*)	853.460	.000	-8246.911	-2546.965
	3	-4805.570(*)	822.436	.000	-7551.944	-2059.196
	4	-7708.409(*)	988.107	.000	-11008.012	-4408.805
	5	-6826.977(*)	1035.842	.000	-10285.981	-3367.973
	6	-9371.408(*)	1176.856	.000	-13301.302	-5441.513
	7	-9071.527(*)	1444.073	.000	-13893.743	-4249.311
	8	-8518.340(*)	1711.925	.000	-14235.002	-2801.679
	9	-4921.989(*)	1162.233	.002	-8803.053	-1040.925
	10	-1925.074	883.473	.813	-4875.270	1025.123



Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Diversity Level

### Estimates

Measure: MEASURE\_1

Total Diversity Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	241.363	180.897	-114.443	597.169
Medium	670.578	162.926	350.118	991.038
High	1359.554	208.881	948.704	1770.403

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	62370120.115	2	31185060.058	8.215	.000	.046	.960
Error	1302004379.651	343	3795931.136				

The F tests the effect of Total Diversity Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-429.215	243.451	.218	-1013.365	154.936
	High	-1118.191(*)	276.324	.000	-1781.218	-455.164
Medium	Low	429.215	243.451	.218	-154.936	1013.365
	High	-688.976(*)	264.908	.029	-1324.611	-53.341
High	Low	1118.191(*)	276.324	.000	455.164	1781.218
	Medium	688.976(*)	264.908	.029	53.341	1324.611

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Total Diversity Level \* year

#### Estimates

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	169.491	296.419	-413.537	752.519
	2	311.817	257.086	-193.847	817.481
	3	-252.063	201.091	-647.589	143.463
	4	804.694	450.152	-80.711	1690.099
	5	468.084	586.081	-684.682	1620.850
	6	1148.475	778.581	-382.920	2679.870
	7	277.245	1188.751	-2060.914	2615.404
	8	561.123	1855.601	-3088.667	4210.912
	9	698.957	1614.039	-2475.702	3873.616
	10	-14.854	1178.321	-2332.498	2302.791
	11	-1517.975	1371.351	-4215.292	1179.342

Medium	1	275.608	266.973	-249.503	800.718
	2	206.932	231.547	-248.500	662.363
	3	-296.972	181.114	-653.207	59.262
	4	1673.912	405.434	876.463	2471.361
	5	1526.029	527.860	487.778	2564.279
	6	2441.050	701.237	1061.783	3820.316
	7	3497.600	1070.660	1391.713	5603.486
	8	4064.051	1671.266	776.831	7351.271
	9	176.797	1453.700	-2682.492	3036.087
	10	-1957.551	1061.267	-4044.962	129.859
High	11	-4231.096	1235.122	-6660.462	-1801.730
	1	51.246	342.275	-621.977	724.469
	2	557.206	296.857	-26.684	1141.096
	3	-149.113	232.199	-605.827	307.601
	4	5531.760	519.790	4509.383	6554.138
	5	3371.960	676.749	2040.860	4703.059
	6	9409.839	899.028	7641.537	11178.141
	7	8324.877	1372.651	5625.004	11024.750
	8	5814.988	2142.664	1600.574	10029.402
	9	-1224.648	1863.731	-4890.429	2441.133
	10	-7367.233	1360.608	-10043.418	-4691.047
	11	-9365.788	1583.500	-12480.382	-6251.195

#### Multivariate Tests

Total Diversity Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.030	1.030(b)	10.000	334.000	.418	.030	.544
	Wilks' lambda	.970	1.030(b)	10.000	334.000	.418	.030	.544
	Hotelling's trace	.031	1.030(b)	10.000	334.000	.418	.030	.544
	Roy's largest root	.031	1.030(b)	10.000	334.000	.418	.030	.544
Medium	Pillai's trace	.070	2.498(b)	10.000	334.000	.007	.070	.949

High	Wilks' lambda	.930	2.498(b)	10.000	334.000	.007	.070	.949
	Hotelling's trace	.075	2.498(b)	10.000	334.000	.007	.070	.949
	Roy's largest root	.075	2.498(b)	10.000	334.000	.007	.070	.949
	Pillai's trace	.295	14.000(b)	10.000	334.000	.000	.295	1.000
	Wilks' lambda	.705	14.000(b)	10.000	334.000	.000	.295	1.000
	Hotelling's trace	.419	14.000(b)	10.000	334.000	.000	.295	1.000
	Roy's largest root	.419	14.000(b)	10.000	334.000	.000	.295	1.000

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

#### Pairwise Comparisons

Measure: MEASURE\_1

Total Diversity Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	1	2	-142.326	335.131	1.000	-1261.434	976.782
		3	421.554	390.517	1.000	-882.506	1725.613
		4	-635.203	554.765	1.000	-2487.740	1217.333
		5	-298.593	708.939	1.000	-2665.964	2068.778
		6	-978.984	852.511	1.000	-3825.788	1867.819
		7	-107.754	1254.295	1.000	-4296.242	4080.733
		8	-391.632	1784.038	1.000	-6349.100	5565.836
		9	-529.466	1749.569	1.000	-6371.832	5312.899
		10	184.344	1234.172	1.000	-3936.947	4305.636
		11	1687.465	1402.412	1.000	-2995.631	6370.562
	2	1	142.326	335.131	1.000	-976.782	1261.434
		3	563.880	337.545	.996	-563.290	1691.049
		4	-492.877	496.280	1.000	-2150.114	1164.361

3	5	-156.267	584.681	1.000	-2108.702	1796.168
	6	-836.658	820.584	1.000	-3576.848	1903.532
	7	34.572	1230.377	1.000	-4074.047	4143.191
	8	-249.306	1840.634	1.000	-6395.766	5897.155
	9	-387.140	1674.157	1.000	-5977.681	5203.401
	10	326.671	1231.362	1.000	-3785.239	4438.580
	11	1829.792	1443.867	1.000	-2991.737	6651.320
	1	-421.554	390.517	1.000	-1725.613	882.506
	2	-563.880	337.545	.996	-1691.049	563.290
	4	-1056.757	476.075	.779	-2646.522	533.008
	5	-720.147	600.376	1.000	-2724.994	1284.701
4	6	-1400.538	808.995	.992	-4102.030	1300.954
	7	-529.308	1210.127	1.000	-4570.304	3511.688
	8	-813.186	1861.104	1.000	-7028.001	5401.630
	9	-951.020	1636.259	1.000	-6415.006	4512.966
	10	-237.209	1203.079	1.000	-4254.672	3780.253
	11	1265.912	1391.381	1.000	-3380.349	5912.173
	1	635.203	554.765	1.000	-1217.333	2487.740
	2	492.877	496.280	1.000	-1164.361	2150.114
	3	1056.757	476.075	.779	-533.008	2646.522
	5	336.610	537.382	1.000	-1457.878	2131.097
	6	-343.781	576.852	1.000	-2270.071	1582.509
5	7	527.449	1002.322	1.000	-2819.624	3874.521
	8	243.571	1754.549	1.000	-5615.424	6102.566
	9	105.737	1672.605	1.000	-5479.622	5691.096
	10	819.547	1474.122	1.000	-4103.013	5742.108
	11	2322.668	1671.660	1.000	-3259.535	7904.872
	1	298.593	708.939	1.000	-2068.778	2665.964
	2	156.267	584.681	1.000	-1796.168	2108.702
	3	720.147	600.376	1.000	-1284.701	2724.994
	4	-336.610	537.382	1.000	-2131.097	1457.878
	6	-680.391	764.460	1.000	-3233.165	1872.382
	7	190.839	1077.915	1.000	-3408.662	3790.340

6	8	-93.039	1819.513	1.000	-6168.970	5982.892
	9	-230.873	1722.163	1.000	-5981.720	5519.973
	10	482.937	1416.489	1.000	-4247.168	5213.042
	11	1986.058	1752.417	1.000	-3865.816	7837.933
	1	978.984	852.511	1.000	-1867.819	3825.788
	2	836.658	820.584	1.000	-1903.532	3576.848
	3	1400.538	808.995	.992	-1300.954	4102.030
	4	343.781	576.852	1.000	-1582.509	2270.071
	5	680.391	764.460	1.000	-1872.382	3233.165
	7	871.230	874.026	1.000	-2047.421	3789.880
	8	587.352	1717.326	1.000	-5147.344	6322.048
7	9	449.518	1775.034	1.000	-5477.884	6376.920
	10	1163.328	1672.907	1.000	-4423.038	6749.695
	11	2666.450	1990.981	1.000	-3982.067	9314.966
	1	107.754	1254.295	1.000	-4080.733	4296.242
	2	-34.572	1230.377	1.000	-4143.191	4074.047
	3	529.308	1210.127	1.000	-3511.688	4570.304
	4	-527.449	1002.322	1.000	-3874.521	2819.624
	5	-190.839	1077.915	1.000	-3790.340	3408.662
	6	-871.230	874.026	1.000	-3789.880	2047.421
	8	-283.878	1583.210	1.000	-5570.718	5002.962
	9	-421.712	2159.075	1.000	-7631.547	6788.123
8	10	292.099	1918.669	1.000	-6114.946	6699.143
	11	1795.220	2443.053	1.000	-6362.909	9953.348
	1	391.632	1784.038	1.000	-5565.836	6349.100
	2	249.306	1840.634	1.000	-5897.155	6395.766
	3	813.186	1861.104	1.000	-5401.630	7028.001
	4	-243.571	1754.549	1.000	-6102.566	5615.424
	5	93.039	1819.513	1.000	-5982.892	6168.970
	6	-587.352	1717.326	1.000	-6322.048	5147.344
	7	283.878	1583.210	1.000	-5002.962	5570.718
	9	-137.834	3025.209	1.000	-10239.965	9964.297
	10	575.976	2588.838	1.000	-8068.975	9220.928

Medium	9	11	2079.097	2896.201	1.000	-7592.237	11750.431
		1	529.466	1749.569	1.000	-5312.899	6371.832
		2	387.140	1674.157	1.000	-5203.401	5977.681
		3	951.020	1636.259	1.000	-4512.966	6415.006
		4	-105.737	1672.605	1.000	-5691.096	5479.622
		5	230.873	1722.163	1.000	-5519.973	5981.720
		6	-449.518	1775.034	1.000	-6376.920	5477.884
		7	421.712	2159.075	1.000	-6788.123	7631.547
		8	137.834	3025.209	1.000	-9964.297	10239.965
		10	713.811	2124.531	1.000	-6380.670	7808.291
		11	2216.932	1966.243	1.000	-4348.976	8782.839
	10	1	-184.344	1234.172	1.000	-4305.636	3936.947
		2	-326.671	1231.362	1.000	-4438.580	3785.239
		3	237.209	1203.079	1.000	-3780.253	4254.672
		4	-819.547	1474.122	1.000	-5742.108	4103.013
		5	-482.937	1416.489	1.000	-5213.042	4247.168
		6	-1163.328	1672.907	1.000	-6749.695	4423.038
		7	-292.099	1918.669	1.000	-6699.143	6114.946
		8	-575.976	2588.838	1.000	-9220.928	8068.975
		9	-713.811	2124.531	1.000	-7808.291	6380.670
		11	1503.121	1494.642	1.000	-3487.963	6494.205
	11	1	-1687.465	1402.412	1.000	-6370.562	2995.631
		2	-1829.792	1443.867	1.000	-6651.320	2991.737
		3	-1265.912	1391.381	1.000	-5912.173	3380.349
		4	-2322.668	1671.660	1.000	-7904.872	3259.535
		5	-1986.058	1752.417	1.000	-7837.933	3865.816
		6	-2666.450	1990.981	1.000	-9314.966	3982.067
		7	-1795.220	2443.053	1.000	-9953.348	6362.909
		8	-2079.097	2896.201	1.000	-11750.431	7592.237
		9	-2216.932	1966.243	1.000	-8782.839	4348.976
		10	-1503.121	1494.642	1.000	-6494.205	3487.963
	1	2	68.676	301.839	1.000	-939.260	1076.612
		3	572.580	351.723	.998	-601.935	1747.094

2	4	-1398.305	499.655	.259	-3066.811	270.201
	5	-1250.421	638.513	.944	-3382.618	881.776
	6	-2165.442	767.823	.244	-4729.445	398.561
	7	-3221.992	1129.693	.224	-6994.396	550.411
	8	-3788.443	1606.812	.651	-9154.097	1577.211
	9	98.810	1575.767	1.000	-5163.176	5360.796
	10	2233.159	1111.570	.922	-1478.724	5945.042
	11	4506.704(*)	1263.096	.022	288.825	8724.583
	1	-68.676	301.839	1.000	-1076.612	939.260
	3	503.904	304.013	.997	-511.293	1519.101
	4	-1466.981	446.980	.061	-2959.588	25.627
3	5	-1319.097	526.599	.505	-3077.577	439.383
	6	-2234.118	739.067	.138	-4702.098	233.862
	7	-3290.668	1108.152	.161	-6991.138	409.801
	8	-3857.119	1657.786	.681	-9392.991	1678.753
	9	30.134	1507.847	1.000	-5005.044	5065.312
	10	2164.483	1109.039	.946	-1538.950	5867.916
	11	4438.028(*)	1300.433	.039	95.469	8780.587
	1	-572.580	351.723	.998	-1747.094	601.935
	2	-503.904	304.013	.997	-1519.101	511.293
	4	-1970.884(*)	428.782	.000	-3402.723	-539.046
	5	-1823.001(*)	540.735	.045	-3628.687	-17.315
4	6	-2738.022(*)	728.630	.011	-5171.148	-304.896
	7	-3794.572(*)	1089.913	.030	-7434.137	-155.007
	8	-4361.023	1676.222	.414	-9958.460	1236.414
	9	-473.770	1473.713	1.000	-5394.964	4447.425
	10	1660.579	1083.566	.999	-1957.790	5278.948
	11	3934.124	1253.161	.096	-250.578	8118.826
	1	1398.305	499.655	.259	-270.201	3066.811
	2	1466.981	446.980	.061	-25.627	2959.588
	3	1970.884(*)	428.782	.000	539.046	3402.723
	5	147.884	483.998	1.000	-1468.340	1764.107
	6	-767.137	519.547	1.000	-2502.070	967.795



5	7	-1823.688	902.752	.917	-4838.263	1190.887
	8	-2390.139	1580.253	1.000	-7667.103	2886.825
	9	1497.115	1506.449	1.000	-3533.396	6527.625
	10	3631.464	1327.683	.304	-802.091	8065.018
	11	5905.009(*)	1505.598	.006	877.340	10932.677
	1	1250.421	638.513	.944	-881.776	3382.618
	2	1319.097	526.599	.505	-439.383	3077.577
	3	1823.001(*)	540.735	.045	17.315	3628.687
	4	-147.884	483.998	1.000	-1764.107	1468.340
	6	-915.021	688.519	1.000	-3214.202	1384.161
	7	-1971.571	970.835	.911	-5213.498	1270.356
6	8	-2538.022	1638.763	.999	-8010.371	2934.327
	9	1349.231	1551.083	1.000	-3830.327	6528.790
	10	3483.580	1275.775	.307	-776.637	7743.797
	11	5757.125(*)	1578.332	.017	486.575	11027.675
	1	2165.442	767.823	.244	-398.561	4729.445
	2	2234.118	739.067	.138	-233.862	4702.098
	3	2738.022(*)	728.630	.011	304.896	5171.148
	4	767.137	519.547	1.000	-967.795	2502.070
	5	915.021	688.519	1.000	-1384.161	3214.202
	7	-1056.550	787.201	1.000	-3685.263	1572.162
	8	-1623.001	1546.727	1.000	-6788.014	3542.011
7	9	2264.252	1598.703	1.000	-3074.323	7602.827
	10	4398.601	1506.721	.186	-632.817	9430.019
	11	6672.146(*)	1793.198	.013	684.091	12660.201
	1	3221.992	1129.693	.224	-550.411	6994.396
	2	3290.668	1108.152	.161	-409.801	6991.138
	3	3794.572(*)	1089.913	.030	155.007	7434.137
	4	1823.688	902.752	.917	-1190.887	4838.263
	5	1971.571	970.835	.911	-1270.356	5213.498
	6	1056.550	787.201	1.000	-1572.162	3685.263
	8	-566.451	1425.934	1.000	-5328.097	4195.195
	9	3320.802	1944.593	.994	-3172.809	9814.414

8	10	5455.151	1728.069	.091	-315.418	11225.721
	11	7728.696(*)	2200.361	.027	380.994	15076.398
	1	3788.443	1606.812	.651	-1577.211	9154.097
	2	3857.119	1657.786	.681	-1678.753	9392.991
	3	4361.023	1676.222	.414	-1236.414	9958.460
	4	2390.139	1580.253	1.000	-2886.825	7667.103
	5	2538.022	1638.763	.999	-2934.327	8010.371
	6	1623.001	1546.727	1.000	-3542.011	6788.014
	7	566.451	1425.934	1.000	-4195.195	5328.097
	9	3887.253	2724.685	1.000	-5211.334	12985.841
	10	6021.602	2331.664	.432	-1764.562	13807.766
9	11	8295.147	2608.493	.085	-415.439	17005.733
	1	-98.810	1575.767	1.000	-5360.796	5163.176
	2	-30.134	1507.847	1.000	-5065.312	5005.044
	3	473.770	1473.713	1.000	-4447.425	5394.964
	4	-1497.115	1506.449	1.000	-6527.625	3533.396
	5	-1349.231	1551.083	1.000	-6528.790	3830.327
	6	-2264.252	1598.703	1.000	-7602.827	3074.323
	7	-3320.802	1944.593	.994	-9814.414	3172.809
	8	-3887.253	2724.685	1.000	-12985.841	5211.334
	10	2134.349	1913.480	1.000	-4255.368	8524.065
	11	4407.894	1770.917	.521	-1505.757	10321.545
10	1	-2233.159	1111.570	.922	-5945.042	1478.724
	2	-2164.483	1109.039	.946	-5867.916	1538.950
	3	-1660.579	1083.566	.999	-5278.948	1957.790
	4	-3631.464	1327.683	.304	-8065.018	802.091
	5	-3483.580	1275.775	.307	-7743.797	776.637
	6	-4398.601	1506.721	.186	-9430.019	632.817
	7	-5455.151	1728.069	.091	-11225.721	315.418
	8	-6021.602	2331.664	.432	-13807.766	1764.562
	9	-2134.349	1913.480	1.000	-8524.065	4255.368
	11	2273.545	1346.165	.995	-2221.726	6768.816
	11	1	-4506.704(*)	1263.096	.022	-8724.583

High	1	2	-4438.028(*)	1300.433	.039	-8780.587	-95.469
		3	-3934.124	1253.161	.096	-8118.826	250.578
		4	-5905.009(*)	1505.598	.006	-10932.677	-877.340
		5	-5757.125(*)	1578.332	.017	-11027.675	-486.575
		6	-6672.146(*)	1793.198	.013	-12660.201	-684.091
		7	-7728.696(*)	2200.361	.027	-15076.398	-380.994
		8	-8295.147	2608.493	.085	-17005.733	415.439
		9	-4407.894	1770.917	.521	-10321.545	1505.757
		10	-2273.545	1346.165	.995	-6768.816	2221.726
		2	-505.960	386.976	1.000	-1798.195	786.275
	2	3	200.359	450.930	1.000	-1305.439	1706.158
		4	-5480.515(*)	640.588	.000	-7619.640	-3341.390
		5	-3320.714(*)	818.612	.003	-6054.319	-587.109
		6	-9358.593(*)	984.395	.000	-12645.799	-6071.387
		7	-8273.631(*)	1448.335	.000	-13110.079	-3437.182
		8	-5763.742	2060.030	.259	-12642.833	1115.349
		9	1275.894	2020.228	1.000	-5470.289	8022.077
		10	7418.478(*)	1425.099	.000	2659.621	12177.336
		11	9417.034(*)	1619.365	.000	4009.460	14824.608
		1	505.960	386.976	1.000	-786.275	1798.195
	3	3	706.319	389.763	.982	-595.224	2007.862
		4	-4974.555(*)	573.055	.000	-6888.168	-3060.941
		5	-2814.754(*)	675.131	.002	-5069.231	-560.276
		6	-8852.633(*)	947.529	.000	-12016.732	-5688.534
		7	-7767.671(*)	1420.717	.000	-12511.895	-3023.446
		8	-5257.782	2125.381	.536	-12355.103	1839.539
		9	1781.854	1933.150	1.000	-4673.547	8237.255
		10	7924.438(*)	1421.855	.000	3176.415	12672.462
		11	9922.994(*)	1667.234	.000	4355.573	15490.416
		1	-200.359	450.930	1.000	-1706.158	1305.439
		2	-706.319	389.763	.982	-2007.862	595.224
		4	-5680.874(*)	549.724	.000	-7516.576	-3845.171
		5	-3521.073(*)	693.255	.000	-5836.071	-1206.075

4	6	-9558.952(*)	934.147	.000	-12678.366	-6439.538
	7	-8473.990(*)	1397.334	.000	-13140.131	-3807.849
	8	-5964.101	2149.018	.275	-13140.352	1212.149
	9	1075.535	1889.389	1.000	-5233.733	7384.802
	10	7218.119(*)	1389.196	.000	2579.153	11857.085
	11	9216.675(*)	1606.628	.000	3851.635	14581.715
	1	5480.515(*)	640.588	.000	3341.390	7619.640
	2	4974.555(*)	573.055	.000	3060.941	6888.168
	3	5680.874(*)	549.724	.000	3845.171	7516.576
	5	2159.801(*)	620.515	.031	87.705	4231.897
	6	-3878.078(*)	666.091	.000	-6102.366	-1653.790
5	7	-2793.116	1157.382	.596	-6657.982	1071.750
	8	-283.228	2025.979	1.000	-7048.613	6482.158
	9	6756.408(*)	1931.358	.029	306.991	13205.826
	10	12898.993(*)	1702.170	.000	7214.910	18583.076
	11	14897.549(*)	1930.267	.000	8451.776	21343.322
	1	3320.714(*)	818.612	.003	587.109	6054.319
	2	2814.754(*)	675.131	.002	560.276	5069.231
	3	3521.073(*)	693.255	.000	1206.075	5836.071
	4	-2159.801(*)	620.515	.031	-4231.897	-87.705
	6	-6037.879(*)	882.722	.000	-8985.568	-3090.190
	7	-4952.917(*)	1244.669	.005	-9109.262	-796.571
6	8	-2443.028	2100.993	1.000	-9458.909	4572.852
	9	4596.608	1988.582	.696	-2043.898	11237.113
	10	10739.192(*)	1635.620	.000	5277.337	16201.047
	11	12737.748(*)	2023.516	.000	5980.586	19494.910
	1	9358.593(*)	984.395	.000	6071.387	12645.799
	2	8852.633(*)	947.529	.000	5688.534	12016.732
	3	9558.952(*)	934.147	.000	6439.538	12678.366
	4	3878.078(*)	666.091	.000	1653.790	6102.366
	5	6037.879(*)	882.722	.000	3090.190	8985.568
	7	1084.962	1009.239	1.000	-2285.205	4455.130
	8	3594.851	1982.997	.982	-3027.006	10216.707

7	9	10634.487(*)	2049.633	.000	3790.112	17478.861
	10	16777.071(*)	1931.707	.000	10326.491	23227.652
	11	18775.627(*)	2298.987	.000	11098.581	26452.673
	1	8273.631(*)	1448.335	.000	3437.182	13110.079
	2	7767.671(*)	1420.717	.000	3023.446	12511.895
	3	8473.990(*)	1397.334	.000	3807.849	13140.131
	4	2793.116	1157.382	.596	-1071.750	6657.982
	5	4952.917(*)	1244.669	.005	796.571	9109.262
	6	-1084.962	1009.239	1.000	-4455.130	2285.205
	8	2509.889	1828.133	1.000	-3594.828	8614.605
	9	9549.525(*)	2493.085	.008	1224.324	17874.725
8	10	15692.109(*)	2215.488	.000	8293.892	23090.327
	11	17690.665(*)	2820.995	.000	8270.469	27110.861
	1	5763.742	2060.030	.259	-1115.349	12642.833
	2	5257.782	2125.381	.536	-1839.539	12355.103
	3	5964.101	2149.018	.275	-1212.149	13140.352
	4	283.228	2025.979	1.000	-6482.158	7048.613
	5	2443.028	2100.993	1.000	-4572.852	9458.909
	6	-3594.851	1982.997	.982	-10216.707	3027.006
	7	-2509.889	1828.133	1.000	-8614.605	3594.828
	9	7039.636	3493.210	.919	-4625.300	18704.572
	10	13182.221(*)	2989.333	.001	3199.891	23164.551
9	11	15180.776(*)	3344.245	.000	4013.282	26348.271
	1	-1275.894	2020.228	1.000	-8022.077	5470.289
	2	-1781.854	1933.150	1.000	-8237.255	4673.547
	3	-1075.535	1889.389	1.000	-7384.802	5233.733
	4	-6756.408(*)	1931.358	.029	-13205.826	-306.991
	5	-4596.608	1988.582	.696	-11237.113	2043.898
	6	-10634.487(*)	2049.633	.000	-17478.861	-3790.112
	7	-9549.525(*)	2493.085	.008	-17874.725	-1224.324
	8	-7039.636	3493.210	.919	-18704.572	4625.300
	10	6142.585	2453.197	.506	-2049.416	14334.585
	11	8141.140(*)	2270.421	.021	559.484	15722.797

10	1	-7418.478(*)	1425.099	.000	-12177.336	-2659.621
	2	-7924.438(*)	1421.855	.000	-12672.462	-3176.415
	3	-7218.119(*)	1389.196	.000	-11857.085	-2579.153
	4	-12898.993(*)	1702.170	.000	-18583.076	-7214.910
	5	-10739.192(*)	1635.620	.000	-16201.047	-5277.337
	6	-16777.071(*)	1931.707	.000	-23227.652	-10326.491
	7	-15692.109(*)	2215.488	.000	-23090.327	-8293.892
	8	-13182.221(*)	2989.333	.001	-23164.551	-3199.891
	9	-6142.585	2453.197	.506	-14334.585	2049.416
11	11	1998.556	1725.864	1.000	-3764.652	7761.763
	1	-9417.034(*)	1619.365	.000	-14824.608	-4009.460
	2	-9922.994(*)	1667.234	.000	-15490.416	-4355.573
	3	-9216.675(*)	1606.628	.000	-14581.715	-3851.635
	4	-14897.549(*)	1930.267	.000	-21343.322	-8451.776
	5	-12737.748(*)	2023.516	.000	-19494.910	-5980.586
	6	-18775.627(*)	2298.987	.000	-26452.673	-11098.581
	7	-17690.665(*)	2820.995	.000	-27110.861	-8270.469
	8	-15180.776(*)	3344.245	.000	-26348.271	-4013.282
	9	-8141.140(*)	2270.421	.021	-15722.797	-559.484
	10	-1998.556	1725.864	1.000	-7761.763	3764.652

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Total Diversity Level \* year

#### Estimates

Measure: MEASURE\_1

Total Diversity Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound

Low	1	169.491	296.419	-413.537	752.519
	2	311.817	257.086	-193.847	817.481
	3	-252.063	201.091	-647.589	143.463
	4	804.694	450.152	-80.711	1690.099
	5	468.084	586.081	-684.682	1620.850
	6	1148.475	778.581	-382.920	2679.870
	7	277.245	1188.751	-2060.914	2615.404
	8	561.123	1855.601	-3088.667	4210.912
	9	698.957	1614.039	-2475.702	3873.616
	10	-14.854	1178.321	-2332.498	2302.791
	11	-1517.975	1371.351	-4215.292	1179.342
Medium	1	275.608	266.973	-249.503	800.718
	2	206.932	231.547	-248.500	662.363
	3	-296.972	181.114	-653.207	59.262
	4	1673.912	405.434	876.463	2471.361
	5	1526.029	527.860	487.778	2564.279
	6	2441.050	701.237	1061.783	3820.316
	7	3497.600	1070.660	1391.713	5603.486
	8	4064.051	1671.266	776.831	7351.271
	9	176.797	1453.700	-2682.492	3036.087
	10	-1957.551	1061.267	-4044.962	129.859
	11	-4231.096	1235.122	-6660.462	-1801.730
High	1	51.246	342.275	-621.977	724.469
	2	557.206	296.857	-26.684	1141.096
	3	-149.113	232.199	-605.827	307.601
	4	5531.760	519.790	4509.383	6554.138
	5	3371.960	676.749	2040.860	4703.059
	6	9409.839	899.028	7641.537	11178.141
	7	8324.877	1372.651	5625.004	11024.750
	8	5814.988	2142.664	1600.574	10029.402
	9	-1224.648	1863.731	-4890.429	2441.133
	10	-7367.233	1360.608	-10043.418	-4691.047

11	-9365.788	1583.500	-12480.382	-6251.195
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### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	2757673.544	2	1378836.772	.135	.874	.001	.071
	Error	3495945644.301	343	10192261.354				
2	Contrast	6695354.932	2	3347677.466	.437	.647	.003	.121
	Error	2629718641.860	343	7666818.198				
3	Contrast	1191923.996	2	595961.998	.127	.881	.001	.069
	Error	1608924551.010	343	4690742.131				
4	Contrast	1223120167.243	2	611560083.622	26.017	.000	.132	1.000
	Error	8062499329.226	343	23505828.948				
5	Contrast	422135948.223	2	211067974.112	5.297	.005	.030	.835
	Error	13666839693.541	343	39845013.684				
6	Contrast	3816993510.868	2	1908496755.434	27.141	.000	.137	1.000
	Error	24119037007.818	343	70317892.151				
7	Contrast	3224100057.648	2	1612050028.824	9.834	.000	.054	.983
	Error	56225537517.123	343	163922849.904				
8	Contrast	1503627137.800	2	751813568.900	1.882	.154	.011	.391
	Error	137000236694.925	343	399417599.694				
9	Contrast	191619808.417	2	95809904.209	.317	.729	.002	.100
	Error	103652536327.933	343	302193983.464				
10	Contrast	2809924641.275	2	1404962320.638	8.723	.000	.048	.969
	Error	55243264174.286	343	161059079.225				
11	Contrast	3097284502.435	2	1548642251.218	7.099	.001	.040	.929
	Error	74825501540.340	343	218150150.264				

Each F tests the simple effects of Total Diversity Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05



### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Total Diversity Level	(J) Total Diversity Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	-106.117	398.922	.991	-1063.313	851.079
		High	118.245	452.788	.991	-968.199	1204.689
	Medium	Low	106.117	398.922	.991	-851.079	1063.313
		High	224.362	434.082	.939	-817.198	1265.921
	High	Low	-118.245	452.788	.991	-1204.689	968.199
		Medium	-224.362	434.082	.939	-1265.921	817.198
2	Low	Medium	104.885	345.988	.987	-725.296	935.067
		High	-245.389	392.705	.898	-1187.668	696.890
	Medium	Low	-104.885	345.988	.987	-935.067	725.296
		High	-350.274	376.482	.729	-1253.625	553.077
	High	Low	245.389	392.705	.898	-696.890	1187.668
		Medium	350.274	376.482	.729	-553.077	1253.625
3	Low	Medium	44.909	270.629	.998	-604.452	694.271
		High	-102.950	307.171	.982	-839.992	634.093
	Medium	Low	-44.909	270.629	.998	-694.271	604.452
		High	-147.859	294.481	.943	-854.453	558.734
	High	Low	102.950	307.171	.982	-634.093	839.992
		Medium	147.859	294.481	.943	-558.734	854.453
4	Low	Medium	-869.218	605.816	.391	-2322.846	584.410
		High	-4727.067(*)	687.618	.000	-6376.975	-3077.159
	Medium	Low	869.218	605.816	.391	-584.410	2322.846
		High	-3857.848(*)	659.210	.000	-5439.594	-2276.103
	High	Low	4727.067(*)	687.618	.000	3077.159	6376.975
		Medium	3857.848(*)	659.210	.000	2276.103	5439.594
5	Low	Medium	-1057.945	788.751	.450	-2950.517	834.627
		High	-2903.876(*)	895.254	.004	-5051.998	-755.754
	Medium	Low	1057.945	788.751	.450	-834.627	2950.517
		High	-1845.931	858.269	.094	-3905.308	213.446

6	High	Low	2903.876(*)	895.254	.004	755.754	5051.998
		Medium	1845.931	858.269	.094	-213.446	3905.308
	Low	Medium	-1292.575	1047.818	.522	-3806.766	1221.617
		High	-8261.364(*)	1189.302	.000	-11115.041	-5407.686
7	Medium	Low	1292.575	1047.818	.522	-1221.617	3806.766
		High	-6968.789(*)	1140.169	.000	-9704.573	-4233.006
	High	Low	8261.364(*)	1189.302	.000	5407.686	11115.041
		Medium	6968.789(*)	1140.169	.000	4233.006	9704.573
8	Low	Medium	-3220.355	1599.826	.129	-7059.064	618.354
		High	-8047.631(*)	1815.847	.000	-12404.673	-3690.590
	Medium	Low	3220.355	1599.826	.129	-618.354	7059.064
		High	-4827.277(*)	1740.829	.017	-9004.316	-650.237
9	High	Low	8047.631(*)	1815.847	.000	3690.590	12404.673
		Medium	4827.277(*)	1740.829	.017	650.237	9004.316
	Low	Medium	-3502.928	2497.276	.411	-9495.028	2489.172
		High	-5253.865	2834.477	.182	-12055.066	1547.335
10	Medium	Low	3502.928	2497.276	.411	-2489.172	9495.028
		High	-1750.937	2717.377	.889	-8271.160	4769.286
	High	Low	5253.865	2834.477	.182	-1547.335	12055.066
		Medium	1750.937	2717.377	.889	-4769.286	8271.160
11	Low	Medium	522.160	2172.180	.993	-4689.888	5734.207
		High	1923.605	2465.485	.820	-3992.214	7839.424
	Medium	Low	-522.160	2172.180	.993	-5734.207	4689.888
		High	1401.445	2363.628	.911	-4269.974	7072.865
12	High	Low	-1923.605	2465.485	.820	-7839.424	3992.214
		Medium	-1401.445	2363.628	.911	-7072.865	4269.974
	Low	Medium	1942.698	1585.789	.528	-1862.332	5747.728
		High	7352.379(*)	1799.915	.000	3033.564	11671.194
13	Medium	Low	-1942.698	1585.789	.528	-5747.728	1862.332
		High	5409.681(*)	1725.555	.006	1269.289	9550.073
	High	Low	-7352.379(*)	1799.915	.000	-11671.194	-3033.564
		Medium	-5409.681(*)	1725.555	.006	-9550.073	-1269.289
14	Low	Medium	2713.122	1845.570	.369	-1715.241	7141.485
		High	7847.814(*)	2094.774	.001	2821.498	12874.129
	Medium	Low	-2713.122	1845.570	.369	-7141.485	1715.241

High	High	5134.692(*)	2008.233	.033	316.028	9953.356
	Low	-7847.814(*)	2094.774	.001	-12874.129	-2821.498
	Medium	-5134.692(*)	2008.233	.033	-9953.356	-316.028

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level 1	Low	116

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	60413528.601	1	60413528.601	9.387	.003	.075	.860
	Quadratic	277193588.308	1	277193588.308	7.372	.008	.060	.768
	Cubic	101647968.077	1	101647968.077	2.970	.087	.025	.401

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level 2	Medium	143

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	688794431.120	1	688794431.120	12.135	.001	.079	.933
	Quadratic	5032483820.342	1	5032483820.342	18.950	.000	.118	.991
	Cubic	1543878375.143	1	1543878375.143	12.260	.001	.079	.935

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Diversity Level	3	High
		87

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	4627406765.473	1	4627406765.473	19.938	.000	.188	.993
	Quadratic	20229085553.014	1	20229085553.014	21.900	.000	.203	.996
	Cubic	1672256576.932	1	1672256576.932	5.458	.022	.060	.637

a. Computed using alpha = .05

### ***General Linear Model with Level of Employee Relations for Market Capitalization Annual Growth***

#### Between-Subjects Factors

	Value Label	N
Total Emp	1	Low
Relations	2	Medium
		154
		110

Level	3	High	82
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### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	28141131854.678	10	2814113185.468	20.341	.000	.056	1.000
	Greenhouse-Geisser	28141131854.678	2.857	9848692695.047	20.341	.000	.056	1.000
	Huynh-Feldt	28141131854.678	2.901	9701592752.731	20.341	.000	.056	1.000
	Lower-bound	28141131854.678	1	28141131854.678	20.341	.000	.056	.994
year * emptot_lvl	Sphericity Assumed	7293811643.159	20	364690582.158	2.636	.000	.015	.999
	Greenhouse-Geisser	7293811643.159	5.715	1276325874.524	2.636	.017	.015	.849
	Huynh-Feldt	7293811643.159	5.801	1257262688.340	2.636	.017	.015	.853
	Lower-bound	7293811643.159	2	3646905821.580	2.636	.073	.015	.523
Error(year)	Sphericity Assumed	474527560708.156	3430	138346227.612				
	Greenhouse-Geisser	474527560708.156	980.070	484177213.732				
	Huynh-Feldt	474527560708.156	994.930	476945549.346				
	Lower-bound	474527560708.156	343	1383462276.118				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3488748840.607	1	3488748840.607	39.140	.000	.102	1.000
	Quadratic	18460089536.018	1	18460089536.018	49.664	.000	.126	1.000
	Cubic	3034280235.047	1	3034280235.047	21.770	.000	.060	.996

year * emptot_lvl	Linear	484541707.368	2	242270853.684	2.718	.067	.016	.536
	Quadratic	3497390979.809	2	1748695489.905	4.705	.010	.027	.786
	Cubic	1013118591.052	2	506559295.526	3.634	.027	.021	.669
Error(year)	Linear	30573624212.776	343	89135930.650				
	Quadratic	127494249109.853	343	371703350.175				
	Cubic	47807653144.494	343	139380912.958				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
emptot_lvl	299105774.323	2	149552887.162	3.487	.032	.020	.650
Error	14709013723.099	343	42883421.933				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	165.953	177.385	-182.946	514.851
2	355.312	153.876	52.653	657.970

3	-217.221	119.523	-452.311	17.870
4	2558.913	285.620	1997.126	3120.700
5	1751.044	355.024	1052.745	2449.343
6	4047.699	495.744	3072.619	5022.780
7	4181.207	721.101	2762.870	5599.544
8	3925.297	1106.792	1748.343	6102.252
9	-333.373	964.020	-2229.509	1562.763
10	-2905.894	720.932	-4323.899	-1487.889
11	-5071.368	828.078	-6700.119	-3442.618

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-189.359	200.620	1.000	-859.293	480.576
	3	383.174	233.369	.997	-396.118	1162.466
	4	-2392.960(*)	345.892	.000	-3548.002	-1237.918
	5	-1585.091(*)	428.053	.014	-3014.495	-155.688
	6	-3881.746(*)	538.234	.000	-5679.079	-2084.414
	7	-4015.254(*)	759.732	.000	-6552.238	-1478.269
	8	-3759.344(*)	1063.352	.025	-7310.213	-208.475
	9	499.326	1045.367	1.000	-2991.484	3990.136
	10	3071.847(*)	753.223	.003	556.596	5587.099
	11	5237.321(*)	846.558	.000	2410.395	8064.247
	11	5237.321(*)	846.558	.000	2410.395	8064.247
2	1	189.359	200.620	1.000	-480.576	859.293
	3	572.532	201.289	.229	-99.635	1244.700
	4	-2203.601(*)	310.388	.000	-3240.087	-1167.116
	5	-1395.733(*)	353.469	.005	-2576.079	-215.386
	6	-3692.388(*)	518.001	.000	-5422.159	-1962.617
	7	-3825.895(*)	745.501	.000	-6315.359	-1336.432

3	8	-3569.986	1098.372	.067	-7237.796	97.825
	9	688.685	999.975	1.000	-2650.550	4027.920
	10	3261.206(*)	752.934	.001	746.921	5775.491
	11	5426.680(*)	871.230	.000	2517.366	8335.993
	1	-383.174	233.369	.997	-1162.466	396.118
	2	-572.532	201.289	.229	-1244.700	99.635
	4	-2776.134(*)	299.616	.000	-3776.646	-1775.622
	5	-1968.265(*)	363.618	.000	-3182.502	-754.028
	6	-4264.920(*)	511.278	.000	-5972.241	-2557.600
	7	-4398.428(*)	733.404	.000	-6847.496	-1949.359
	8	-4142.518(*)	1109.703	.012	-7848.167	-436.870
4	9	116.152	976.812	1.000	-3145.732	3378.037
	10	2688.673(*)	735.575	.016	232.357	5144.990
	11	4854.147(*)	840.819	.000	2046.387	7661.908
	1	2392.960(*)	345.892	.000	1237.918	3548.002
	2	2203.601(*)	310.388	.000	1167.116	3240.087
	3	2776.134(*)	299.616	.000	1775.622	3776.646
	5	807.869	323.928	.516	-273.829	1889.567
	6	-1488.786(*)	352.037	.002	-2664.349	-313.223
	7	-1622.294	599.237	.325	-3623.337	378.749
	8	-1366.384	1046.616	1.000	-4861.367	2128.598
	9	2892.286	1004.860	.209	-463.259	6247.832
5	10	5464.807(*)	915.587	.000	2407.374	8522.241
	11	7630.281(*)	1023.108	.000	4213.800	11046.762
	1	1585.091(*)	428.053	.014	155.688	3014.495
	2	1395.733(*)	353.469	.005	215.386	2576.079
	3	1968.265(*)	363.618	.000	754.028	3182.502
	4	-807.869	323.928	.516	-1889.567	273.829
	6	-2296.655(*)	470.088	.000	-3866.429	-726.882
	7	-2430.163(*)	645.875	.011	-4586.944	-273.381
	8	-2174.253	1082.553	.922	-5789.240	1440.734
	9	2084.417	1030.978	.916	-1358.343	5527.178
	10	4656.939(*)	872.430	.000	1743.618	7570.259



6	11	6822.412(*)	1064.163	.000	3268.834	10375.991
	1	3881.746(*)	538.234	.000	2084.414	5679.079
	2	3692.388(*)	518.001	.000	1962.617	5422.159
	3	4264.920(*)	511.278	.000	2557.600	5972.241
	4	1488.786(*)	352.037	.002	313.223	2664.349
	5	2296.655(*)	470.088	.000	726.882	3866.429
	7	-133.507	522.881	1.000	-1879.571	1612.557
	8	122.402	1031.541	1.000	-3322.241	3567.045
	9	4381.073(*)	1077.314	.003	783.581	7978.564
	10	6953.594(*)	1051.161	.000	3443.435	10463.752
	11	9119.068(*)	1225.538	.000	5026.607	13211.528
7	1	4015.254(*)	759.732	.000	1478.269	6552.238
	2	3825.895(*)	745.501	.000	1336.432	6315.359
	3	4398.428(*)	733.404	.000	1949.359	6847.496
	4	1622.294	599.237	.325	-378.749	3623.337
	5	2430.163(*)	645.875	.011	273.381	4586.944
	6	133.507	522.881	1.000	-1612.557	1879.571
	8	255.909	949.260	1.000	-2913.970	3425.789
	9	4514.580(*)	1295.163	.030	189.621	8839.539
	10	7087.101(*)	1181.340	.000	3142.231	11031.971
	11	9252.575(*)	1480.477	.000	4308.792	14196.358
8	1	3759.344(*)	1063.352	.025	208.475	7310.213
	2	3569.986	1098.372	.067	-97.825	7237.796
	3	4142.518(*)	1109.703	.012	436.870	7848.167
	4	1366.384	1046.616	1.000	-2128.598	4861.367
	5	2174.253	1082.553	.922	-1440.734	5789.240
	6	-122.402	1031.541	1.000	-3567.045	3322.241
	7	-255.909	949.260	1.000	-3425.789	2913.970
	9	4258.671	1804.730	.649	-1767.896	10285.237
	10	6831.192(*)	1559.707	.001	1622.836	12039.547
	11	8996.666(*)	1734.200	.000	3205.622	14787.709
9	1	-499.326	1045.367	1.000	-3990.136	2991.484
	2	-688.685	999.975	1.000	-4027.920	2650.550

10	3	-116.152	976.812	1.000	-3378.037	3145.732
	4	-2892.286	1004.860	.209	-6247.832	463.259
	5	-2084.417	1030.978	.916	-5527.178	1358.343
	6	-4381.073(*)	1077.314	.003	-7978.564	-783.581
	7	-4514.580(*)	1295.163	.030	-8839.539	-189.621
	8	-4258.671	1804.730	.649	-10285.237	1767.896
	10	2572.521	1276.429	.919	-1689.880	6834.922
	11	4737.995(*)	1179.871	.004	798.031	8677.959
	1	-3071.847(*)	753.223	.003	-5587.099	-556.596
	2	-3261.206(*)	752.934	.001	-5775.491	-746.921
	3	-2688.673(*)	735.575	.016	-5144.990	-232.357
11	4	-5464.807(*)	915.587	.000	-8522.241	-2407.374
	5	-4656.939(*)	872.430	.000	-7570.259	-1743.618
	6	-6953.594(*)	1051.161	.000	-10463.752	-3443.435
	7	-7087.101(*)	1181.340	.000	-11031.971	-3142.231
	8	-6831.192(*)	1559.707	.001	-12039.547	-1622.836
	9	-2572.521	1276.429	.919	-6834.922	1689.880
	11	2165.474	890.570	.578	-808.421	5139.369
	1	-5237.321(*)	846.558	.000	-8064.247	-2410.395
	2	-5426.680(*)	871.230	.000	-8335.993	-2517.366
	3	-4854.147(*)	840.819	.000	-7661.908	-2046.387
	4	-7630.281(*)	1023.108	.000	-11046.762	-4213.800
	5	-6822.412(*)	1064.163	.000	-10375.991	-3268.834
	6	-9119.068(*)	1225.538	.000	-13211.528	-5026.607
	7	-9252.575(*)	1480.477	.000	-14196.358	-4308.792
	8	-8996.666(*)	1734.200	.000	-14787.709	-3205.622
	9	-4737.995(*)	1179.871	.004	-8677.959	-798.031
	10	-2165.474	890.570	.578	-5139.369	808.421

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Emp Relations Level

### Estimates

Measure: MEASURE\_1

Total Emp Relations Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	392.688	159.107	79.741	705.635
Medium	884.159	188.257	513.875	1254.443
High	1029.763	218.043	600.894	1458.632

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Emp Relations Level	(J) Total Emp Relations Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	-491.471	246.487	.134	-1082.905	99.963
	High	-637.075	269.921	.055	-1284.739	10.589
Medium	Low	491.471	246.487	.134	-99.963	1082.905
	High	-145.604	288.068	.942	-836.811	545.603
High	Low	637.075	269.921	.055	-10.589	1284.739
	Medium	145.604	288.068	.942	-545.603	836.811

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	27191434.029	2	13595717.015	3.487	.032	.020	.650
Error	1337183065.737	343	3898492.903				

The F tests the effect of Total Emp Relations Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.  
a. Computed using alpha = .05

### 3. Total Emp Relations Level \* year

Measure: MEASURE\_1

Total Emp Relations Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	271.12	257.285	-234.938	777.171
	2	194.24	223.187	-244.750	633.224
	3	-214.84	173.361	-555.827	126.141
	4	1534.49	414.273	719.655	2349.328
	5	1324.50	514.940	311.659	2337.335
	6	2262.91	719.044	848.616	3677.200
	7	1256.70	1045.911	-800.510	3313.902
	8	403.77	1605.331	-2753.759	3561.305
	9	1143.92	1398.249	-1606.305	3894.140
	10	-1714.69	1045.666	-3771.418	342.031
	11	-2142.53	1201.074	-4504.930	219.864
Medium	1	113.80	304.424	-484.973	712.571
	2	458.83	264.078	-60.588	978.245
	3	-563.36	205.123	-966.821	-159.906
	4	2642.90	490.175	1678.769	3607.024
	5	1419.99	609.285	221.582	2618.394
	6	5081.63	850.785	3408.221	6755.046
	7	4911.52	1237.538	2477.398	7345.636
	8	5623.53	1899.453	1887.483	9359.568

High	9	-19.13	1654.431	-3273.234	3234.981
	10	-3010.51	1237.249	-5444.056	-576.957
	11	-6933.44	1421.130	-9728.671	-4138.218
	1	112.94	352.588	-580.564	806.450
	2	412.87	305.859	-188.727	1014.465
	3	126.54	237.577	-340.747	593.834
	4	3499.35	567.728	2382.684	4616.019
	5	2508.65	705.684	1120.635	3896.660
	6	4798.56	985.392	2860.384	6736.729
	7	6375.41	1433.336	3556.173	9194.642
	8	5748.59	2199.976	1421.451	10075.737
	9	-2124.91	1916.188	-5893.868	1644.047
	10	-3992.48	1433.001	-6811.058	-1173.908
	11	-6138.13	1645.975	-9375.601	-2900.652

### ***General Linear Model with Level of Environment for Market Capitalization Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total Environment Level	1	Low	87
	2	Medium	173
	3	High	86

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	25373242209.916	10	2537324220.992	18.270	.000	.051	1.000
	Greenhouse-Geisser	25373242209.916	2.829	8968684611.881	18.270	.000	.051	1.000
	Huynh-Feldt	25373242209.916	2.872	8835641188.184	18.270	.000	.051	1.000
	Lower-bound	25373242209.916	1	25373242209.916	18.270	.000	.051	.989
year * envtot_lvl	Sphericity Assumed	5465385900.713	20	273269295.036	1.968	.006	.011	.988
	Greenhouse-Geisser	5465385900.713	5.658	965925482.053	1.968	.072	.011	.707
	Huynh-Feldt	5465385900.713	5.743	951596732.774	1.968	.071	.011	.712
	Lower-bound	5465385900.713	2	2732692950.357	1.968	.141	.011	.406
Error(year)	Sphericity Assumed	476355986450.602	3430	138879296.341				
	Greenhouse-Geisser	476355986450.602	970.379	490896905.370				
	Huynh-Feldt	476355986450.602	984.990	483614833.606				
	Lower-bound	476355986450.602	343	1388792963.413				

a. Computed using alpha = .05

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3406533967.814	1	3406533967.814	38.416	.000	.101	1.000
	Quadratic	16972471344.013	1	16972471344.013	45.697	.000	.118	1.000
	Cubic	2492626611.689	1	2492626611.689	17.793	.000	.049	.988
year * envtot_lvl	Linear	642439736.390	2	321219868.195	3.622	.028	.021	.667
	Quadratic	3596078405.716	2	1798039202.858	4.841	.008	.027	.798
	Cubic	769477897.838	2	384738948.919	2.746	.066	.016	.540
Error(year)	Linear	30415726183.754	343	88675586.542				

Quadratic	127395561683.947	343	371415631.732			
Cubic	48051293837.709	343	140091235.679			

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
envtot_lvl	146892946.111	2	73446473.056	1.695	.185	.010	.356
Error	14861226551.311	343	43327191.112				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	141.851	180.213	-212.610	496.312
2	338.514	156.568	30.560	646.469
3	-197.576	122.232	-437.994	42.842
4	2615.558	289.516	2046.109	3185.008
5	1809.208	361.789	1097.603	2520.812
6	4057.575	503.901	3066.450	5048.700
7	3852.126	739.834	2396.943	5307.309

8	3523.930	1137.105	1287.353	5760.507
9	-173.049	984.895	-2110.244	1764.145
10	-2876.750	734.694	-4321.822	-1431.677
11	-5010.505	841.654	-6665.958	-3355.052

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-196.663	202.835	1.000	-873.994	480.667
	3	339.427	237.916	1.000	-455.050	1133.904
	4	-2473.707(*)	349.121	.000	-3639.533	-1307.881
	5	-1667.357(*)	435.305	.008	-3120.979	-213.734
	6	-3915.724(*)	545.129	.000	-5736.081	-2095.366
	7	-3710.275(*)	777.479	.000	-6306.523	-1114.027
	8	-3382.079	1092.685	.111	-7030.900	266.741
	9	314.901	1067.051	1.000	-3248.320	3878.121
	10	3018.601(*)	768.521	.006	452.265	5584.937
	11	5152.356(*)	862.593	.000	2271.884	8032.828
2	1	196.663	202.835	1.000	-480.667	873.994
	3	536.091	204.858	.401	-147.996	1220.177
	4	-2277.044(*)	315.441	.000	-3330.399	-1223.688
	5	-1470.693(*)	360.331	.003	-2673.954	-267.433
	6	-3719.060(*)	527.438	.000	-5480.343	-1957.778
	7	-3513.611(*)	765.016	.000	-6068.241	-958.982
	8	-3185.416	1128.245	.242	-6952.983	582.151
	9	511.564	1022.236	1.000	-2902.007	3925.135
	10	3215.264(*)	766.791	.002	654.705	5775.822
	11	5349.019(*)	884.759	.000	2394.529	8303.510



3	1	-339.427	237.916	1.000	-1133.904	455.050
	2	-536.091	204.858	.401	-1220.177	147.996
	4	-2813.134(*)	303.637	.000	-3827.073	-1799.195
	5	-2006.784(*)	370.220	.000	-3243.065	-770.503
	6	-4255.151(*)	519.910	.000	-5991.294	-2519.008
	7	-4049.702(*)	751.439	.000	-6558.994	-1540.410
	8	-3721.506	1140.109	.064	-7528.692	85.679
	9	-24.527	997.965	1.000	-3357.048	3307.995
	10	2679.173(*)	750.160	.022	174.152	5184.195
	11	4812.929(*)	854.850	.000	1958.315	7667.543
	4	1	2473.707(*)	.000	1307.881	3639.533
4	2	2277.044(*)	315.441	.000	1223.688	3330.399
	3	2813.134(*)	303.637	.000	1799.195	3827.073
	5	806.350	330.412	.569	-297.001	1909.702
	6	-1442.017(*)	359.495	.004	-2642.484	-241.549
	7	-1236.568	613.962	.920	-3286.780	813.645
	8	-908.372	1072.843	1.000	-4490.936	2674.192
	9	2788.608	1029.021	.323	-647.620	6224.835
	10	5492.308(*)	931.887	.000	2380.441	8604.175
	11	7626.063(*)	1038.368	.000	4158.623	11093.503
	5	1	1667.357(*)	.008	213.734	3120.979
	2	1470.693(*)	360.331	.003	267.433	2673.954
5	3	2006.784(*)	370.220	.000	770.503	3243.065
	4	-806.350	330.412	.569	-1909.702	297.001
	6	-2248.367(*)	480.035	.000	-3851.355	-645.379
	7	-2042.918	662.722	.115	-4255.956	170.120
	8	-1714.722	1111.702	.999	-5427.047	1997.602
	9	1982.257	1054.393	.969	-1538.695	5503.209
	10	4685.957(*)	888.738	.000	1718.180	7653.734
	11	6819.713(*)	1081.243	.000	3209.099	10430.326
	6	1	3915.724(*)	.000	2095.366	5736.081
	2	3719.060(*)	527.438	.000	1957.778	5480.343
	3	4255.151(*)	519.910	.000	2519.008	5991.294

7	4	1442.017(*)	359.495	.004	241.549	2642.484
	5	2248.367(*)	480.035	.000	645.379	3851.355
	7	205.449	536.027	1.000	-1584.515	1995.413
	8	533.644	1054.408	1.000	-2987.358	4054.647
	9	4230.624(*)	1104.313	.008	542.972	7918.276
	10	6934.324(*)	1069.249	.000	3363.764	10504.885
	11	9068.079(*)	1245.003	.000	4910.622	13225.537
	1	3710.275(*)	777.479	.000	1114.027	6306.523
	2	3513.611(*)	765.016	.000	958.982	6068.241
	3	4049.702(*)	751.439	.000	1540.410	6558.994
	4	1236.568	613.962	.920	-813.645	3286.780
8	5	2042.918	662.722	.115	-170.120	4255.956
	6	-205.449	536.027	1.000	-1995.413	1584.515
	8	328.196	968.355	1.000	-2905.448	3561.840
	9	4025.175	1332.627	.139	-424.888	8475.239
	10	6728.875(*)	1207.835	.000	2695.533	10762.218
	11	8862.631(*)	1511.051	.000	3816.754	13908.507
	1	3382.079	1092.685	.111	-266.741	7030.900
	2	3185.416	1128.245	.242	-582.151	6952.983
	3	3721.506	1140.109	.064	-85.679	7528.692
	4	908.372	1072.843	1.000	-2674.192	4490.936
	5	1714.722	1111.702	.999	-1997.602	5427.047
9	6	-533.644	1054.408	1.000	-4054.647	2987.358
	7	-328.196	968.355	1.000	-3561.840	2905.448
	9	3696.980	1851.981	.928	-2487.370	9881.329
	10	6400.680(*)	1598.633	.004	1062.339	11739.021
	11	8534.435(*)	1778.250	.000	2596.296	14472.574
	1	-314.901	1067.051	1.000	-3878.121	3248.320
	2	-511.564	1022.236	1.000	-3925.135	2902.007
	3	24.527	997.965	1.000	-3307.995	3357.048
	4	-2788.608	1029.021	.323	-6224.835	647.620
	5	-1982.257	1054.393	.969	-5503.209	1538.695
	6	-4230.624(*)	1104.313	.008	-7918.276	-542.972

10	7	-4025.175	1332.627	.139	-8475.239	424.888
	8	-3696.980	1851.981	.928	-9881.329	2487.370
	10	2703.700	1299.318	.883	-1635.134	7042.535
	11	4837.455(*)	1194.860	.003	847.440	8827.470
	1	-3018.601(*)	768.521	.006	-5584.937	-452.265
	2	-3215.264(*)	766.791	.002	-5775.822	-654.705
	3	-2679.173(*)	750.160	.022	-5184.195	-174.152
	4	-5492.308(*)	931.887	.000	-8604.175	-2380.441
	5	-4685.957(*)	888.738	.000	-7653.734	-1718.180
	6	-6934.324(*)	1069.249	.000	-10504.885	-3363.764
11	7	-6728.875(*)	1207.835	.000	-10762.218	-2695.533
	8	-6400.680(*)	1598.633	.004	-11739.021	-1062.339
	9	-2703.700	1299.318	.883	-7042.535	1635.134
	11	2133.755	908.450	.660	-899.847	5167.358
	1	-5152.356(*)	862.593	.000	-8032.828	-2271.884
	2	-5349.019(*)	884.759	.000	-8303.510	-2394.529
	3	-4812.929(*)	854.850	.000	-7667.543	-1958.315
	4	-7626.063(*)	1038.368	.000	-11093.503	-4158.623
	5	-6819.713(*)	1081.243	.000	-10430.326	-3209.099
	6	-9068.079(*)	1245.003	.000	-13225.537	-4910.622
	7	-8862.631(*)	1511.051	.000	-13908.507	-3816.754
	8	-8534.435(*)	1778.250	.000	-14472.574	-2596.296
	9	-4837.455(*)	1194.860	.003	-8827.470	-847.440
	10	-2133.755	908.450	.660	-5167.358	899.847

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Environment Level

### Estimates

Measure: MEASURE\_1

Total Environment Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	1038.567	212.777	620.055	1457.078
Medium	593.103	150.890	296.317	889.890
High	572.207	214.010	151.269	993.145

### Pairwise Comparisons

Measure: MEASURE\_1

(I) Total Environment Level	(J) Total Environment Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
Low	Medium	445.464	260.848	.243	-180.430	1071.357
	High	466.359	301.785	.326	-257.761	1190.480
Medium	Low	-445.464	260.848	.243	-1071.357	180.430
	High	20.896	261.855	1.000	-607.414	649.206
High	Low	-466.359	301.785	.326	-1190.480	257.761
	Medium	-20.896	261.855	1.000	-649.206	607.414

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	13353904.192	2	6676952.096	1.695	.185	.010	.356
Error	1351020595.574	343	3938835.556				

The F tests the effect of Total Environment Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Environment Level \* year

Measure: MEASURE\_1

Total Environment Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-317.44	340.941	-988.042	353.156
	2	678.65	296.209	96.040	1261.268
	3	-314.92	231.248	-769.760	139.925
	4	3952.88	547.729	2875.547	5030.209
	5	2439.42	684.462	1093.147	3785.689
	6	6409.08	953.321	4533.988	8284.170
	7	6489.49	1399.678	3736.461	9242.527
	8	5186.77	2151.268	955.435	9418.110
	9	419.07	1863.305	-3245.870	4084.014
	10	-4523.92	1389.954	-7257.827	-1790.014
	11	-8994.85	1592.310	-12126.775	-5862.933
Medium	1	313.23	241.778	-162.323	788.784
	2	301.42	210.056	-111.739	714.579
	3	-383.79	163.989	-706.339	-61.239
	4	1554.14	388.421	790.154	2318.127
	5	1111.10	485.384	156.390	2065.800
	6	2846.96	676.045	1517.247	4176.679
	7	2945.33	992.578	993.021	4897.634
	8	2733.25	1525.566	-267.393	5733.892
	9	506.26	1321.358	-2092.727	3105.241
	10	-2021.57	985.682	-3960.315	-82.829
	11	-3382.19	1129.182	-5603.181	-1161.194
High	1	429.77	342.918	-244.720	1104.252
	2	35.47	297.926	-550.522	621.461
	3	105.98	232.588	-351.501	563.457
	4	2339.66	550.904	1256.080	3423.232

5	1877.11	688.430	523.035	3231.186
6	2916.68	958.847	1030.720	4802.642
7	2121.56	1407.792	-647.437	4890.549
8	2651.77	2163.739	-1604.098	6907.637
9	-1444.48	1874.107	-5130.665	2241.711
10	-2084.76	1398.012	-4834.511	664.999
11	-2654.47	1601.541	-5804.550	495.604

### ***General Linear Model with Level of Product for Market Capitalization Annual Growth***

#### **Between-Subjects Factors**

		Value Label	N
Total Product Level	1	Low	85
	2	Medium	173
	3	High	88

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	29960438978.090	10	2996043897.809	21.880	.000	.060	1.000
	Greenhouse-Geisser	29960438978.090	2.827	10598257833.139	21.880	.000	.060	1.000
	Huynh-Feldt	29960438978.090	2.869	10441124047.912	21.880	.000	.060	1.000

		.090						
	Lower-bound	29960438978	1	29960438978.090	21.880	.000	.060	.997
year * protot_lvl	Sphericity Assumed	12142564937	20	607128246.884	4.434	.000	.025	1.000
	Greenhouse-Geisser	12142564937	5.654	2147666028.179	4.434	.000	.025	.981
	Huynh-Feldt	12142564937	5.739	2115823918.115	4.434	.000	.025	.982
	Lower-bound	12142564937	2	6071282468.838	4.434	.013	.025	.760
Error(year)	Sphericity Assumed	46967880741	3430	136932596.914				
	Greenhouse-Geisser	46967880741	969.634	484387751.766				
	Huynh-Feldt	46967880741	984.226	477206035.474				
	Lower-bound	46967880741	343	1369325969.136				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3832024537.539	1	3832024537.539	43.538	.000	.113	1.000
	Quadratic	19998164257.995	1	19998164257.995	54.289	.000	.137	1.000
	Cubic	3176565034.784	1	3176565034.784	22.649	.000	.062	.997
year * protot_lvl	Linear	868525508.821	2	434262754.410	4.934	.008	.028	.806
	Quadratic	4641660469.760	2	2320830234.800	6.300	.002	.035	.896
	Cubic	714822382.685	2	357411191.342	2.548	.080	.015	.508
Error(year)	Linear	30189640411.324	343	88016444.348				

Quadratic	12634997961 9.903	343	368367287.52 2				
Cubic	48105949352 .862	343	140250581.20 4				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1  
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
protot_lvl	444642371.379	2	222321185.690	5.236	.006	.030	.830
Error	14563477126.043	343	42459116.986				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

#### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	182.726	180.701	-172.697	538.148
2	351.929	156.948	43.229	660.630
3	-232.631	121.257	-471.131	5.870
4	2717.634	287.644	2151.865	3283.402
5	1907.366	360.259	1198.772	2615.960
6	4413.662	497.816	3434.505	5392.820
7	4468.159	732.326	3027.743	5908.574



8	3746.463	1132.091	1519.748	5973.178
9	-159.633	968.003	-2063.603	1744.336
10	-3038.188	734.430	-4482.742	-1593.634
11	-5431.917	841.473	-7087.014	-3776.820

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-169.204	204.226	1.000	-851.180	512.773
	3	415.356	238.353	.991	-380.581	1211.294
	4	-2534.908(*)	349.603	.000	-3702.344	-1367.472
	5	-1724.641(*)	435.159	.005	-3177.773	-271.508
	6	-4230.937(*)	541.589	.000	-6039.474	-2422.399
	7	-4285.433(*)	772.630	.000	-6865.489	-1705.377
	8	-3563.737	1089.445	.063	-7201.740	74.266
	9	342.359	1050.047	1.000	-3164.080	3848.797
	10	3220.914(*)	767.298	.002	658.663	5783.164
	11	5614.643(*)	860.279	.000	2741.899	8487.386
	11	5614.643(*)	860.279	.000	2741.899	8487.386
2	1	169.204	204.226	1.000	-512.773	851.180
	3	584.560	204.464	.220	-98.211	1267.331
	4	-2365.704(*)	313.454	.000	-3412.428	-1318.981
	5	-1555.437(*)	358.863	.001	-2753.795	-357.079
	6	-4061.733(*)	521.090	.000	-5801.818	-2321.648
	7	-4116.229(*)	756.877	.000	-6643.681	-1588.778
	8	-3394.533	1122.244	.137	-7142.063	352.996
	9	511.563	1006.711	1.000	-2850.165	3873.290
	10	3390.117(*)	767.087	.001	828.571	5951.663
	11	5783.846(*)	885.730	.000	2826.115	8741.578
	11	5783.846(*)	885.730	.000	2826.115	8741.578
3	1	-415.356	238.353	.991	-1211.294	380.581

4	2	-584.560	204.464	.220	-1267.331	98.211
	4	-2950.264(*)	300.423	.000	-3953.473	-1947.056
	5	-2139.997(*)	368.349	.000	-3370.032	-909.962
	6	-4646.293(*)	513.208	.000	-6360.058	-2932.528
	7	-4700.789(*)	745.088	.000	-7188.873	-2212.706
	8	-3979.093(*)	1137.002	.029	-7775.902	-182.285
	9	-72.997	978.017	1.000	-3338.906	3192.911
	10	2805.557(*)	749.801	.012	301.734	5309.381
	11	5199.286(*)	854.616	.000	2345.454	8053.118
	1	2534.908(*)	349.603	.000	1367.472	3702.344
	2	2365.704(*)	313.454	.000	1318.981	3412.428
5	3	2950.264(*)	300.423	.000	1947.056	3953.473
	5	810.267	330.517	.558	-293.435	1913.969
	6	-1696.029(*)	357.735	.000	-2890.619	-501.438
	7	-1750.525	610.703	.216	-3789.856	288.806
	8	-1028.829	1066.388	1.000	-4589.836	2532.178
	9	2877.267	1014.145	.233	-509.286	6263.819
	10	5755.821(*)	930.083	.000	2649.980	8861.663
	11	8149.551(*)	1035.585	.000	4691.405	11607.696
	1	1724.641(*)	435.159	.005	271.508	3177.773
	2	1555.437(*)	358.863	.001	357.079	2753.795
	3	2139.997(*)	368.349	.000	909.962	3370.032
6	4	-810.267	330.517	.558	-1913.969	293.435
	6	-2506.296(*)	478.275	.000	-4103.408	-909.184
	7	-2560.792(*)	660.244	.007	-4765.557	-356.028
	8	-1839.097	1107.719	.997	-5538.121	1859.928
	9	2066.999	1037.065	.929	-1396.089	5530.088
	10	4945.554(*)	886.483	.000	1985.306	7905.802
	11	7339.283(*)	1077.952	.000	3739.659	10938.907
	1	4230.937(*)	541.589	.000	2422.399	6039.474
	2	4061.733(*)	521.090	.000	2321.648	5801.818
	3	4646.293(*)	513.208	.000	2932.528	6360.058
	4	1696.029(*)	357.735	.000	501.438	2890.619

7	5	2506.296(*)	478.275	.000	909.184	4103.408
	7	-54.496	533.702	1.000	-1836.698	1727.705
	8	667.200	1044.915	1.000	-2822.102	4156.501
	9	4573.296(*)	1088.959	.002	936.916	8209.675
	10	7451.850(*)	1064.105	.000	3898.467	11005.233
	11	9845.579(*)	1238.717	.000	5709.109	13982.049
	1	4285.433(*)	772.630	.000	1705.377	6865.489
	2	4116.229(*)	756.877	.000	1588.778	6643.681
	3	4700.789(*)	745.088	.000	2212.706	7188.873
	4	1750.525	610.703	.216	-288.806	3789.856
	5	2560.792(*)	660.244	.007	356.028	4765.557
8	6	54.496	533.702	1.000	-1727.705	1836.698
	8	721.696	962.007	1.000	-2490.749	3934.141
	9	4627.792(*)	1310.220	.025	252.552	9003.032
	10	7506.347(*)	1200.490	.000	3497.531	11515.162
	11	9900.076(*)	1503.644	.000	4878.931	14921.220
	1	3563.737	1089.445	.063	-74.266	7201.740
	2	3394.533	1122.244	.137	-352.996	7142.063
	3	3979.093(*)	1137.002	.029	182.285	7775.902
	4	1028.829	1066.388	1.000	-2532.178	4589.836
	5	1839.097	1107.719	.997	-1859.928	5538.121
	6	-667.200	1044.915	1.000	-4156.501	2822.102
9	7	-721.696	962.007	1.000	-3934.141	2490.749
	9	3906.096	1828.132	.845	-2198.617	10010.809
	10	6784.651(*)	1595.516	.002	1456.719	12112.582
	11	9178.380(*)	1777.082	.000	3244.141	15112.618
	1	-342.359	1050.047	1.000	-3848.797	3164.080
	2	-511.563	1006.711	1.000	-3873.290	2850.165
	3	72.997	978.017	1.000	-3192.911	3338.906
	4	-2877.267	1014.145	.233	-6263.819	509.286
	5	-2066.999	1037.065	.929	-5530.088	1396.089
	6	-4573.296(*)	1088.959	.002	-8209.675	-936.916
	7	-4627.792(*)	1310.220	.025	-9003.032	-252.552

10	8	-3906.096	1828.132	.845	-10010.809	2198.617
	10	2878.555	1286.123	.763	-1416.217	7173.327
	11	5272.284(*)	1179.121	.001	1334.824	9209.744
	1	-3220.914(*)	767.298	.002	-5783.164	-658.663
	2	-3390.117(*)	767.087	.001	-5951.663	-828.571
	3	-2805.557(*)	749.801	.012	-5309.381	-301.734
	4	-5755.821(*)	930.083	.000	-8861.663	-2649.980
	5	-4945.554(*)	886.483	.000	-7905.802	-1985.306
	6	-7451.850(*)	1064.105	.000	-11005.233	-3898.467
	7	-7506.347(*)	1200.490	.000	-11515.162	-3497.531
	8	-6784.651(*)	1595.516	.002	-12112.582	-1456.719
11	9	-2878.555	1286.123	.763	-7173.327	1416.217
	11	2393.729	908.832	.386	-641.150	5428.608
	1	-5614.643(*)	860.279	.000	-8487.386	-2741.899
	2	-5783.846(*)	885.730	.000	-8741.578	-2826.115
	3	-5199.286(*)	854.616	.000	-8053.118	-2345.454
	4	-8149.551(*)	1035.585	.000	-11607.696	-4691.405
	5	-7339.283(*)	1077.952	.000	-10938.907	-3739.659
	6	-9845.579(*)	1238.717	.000	-13982.049	-5709.109
	7	-9900.076(*)	1503.644	.000	-14921.220	-4878.931
	8	-9178.380(*)	1777.082	.000	-15112.618	-3244.141
	9	-5272.284(*)	1179.121	.001	-9209.744	-1334.824
	10	-2393.729	908.832	.386	-5428.608	641.150

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Product Level

### Estimates

Measure: MEASURE\_1

Total Product Level	Mean	Std. Error	95% Confidence Interval
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			Lower Bound	Upper Bound
Low	1157.382	213.098	738.238	1576.526
Medium	369.770	149.371	75.971	663.568
High	907.095	209.434	495.157	1319.032

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Product Level	(J) Total Product Level				Upper Bound	Lower Bound
Low	Medium	787.612(*)	260.235	.008	163.189	1412.036
	High	250.287	298.787	.787	-466.638	967.213
Medium	Low	-787.612(*)	260.235	.008	-1412.036	-163.189
	High	-537.325	257.244	.108	-1154.570	79.920
High	Low	-250.287	298.787	.787	-967.213	466.638
	Medium	537.325	257.244	.108	-79.920	1154.570

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	40422033.762	2	20211016.881	5.236	.006	.030	.830
Error	1323952466.004	343	3859919.726				

The F tests the effect of Total Product Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total Product Level \* year

Measure: MEASURE\_1

Total Product Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-76.30	345.827	-756.510	603.909
	2	559.42	300.367	-31.376	1150.210
	3	-675.53	232.062	-1131.974	-219.088
	4	3971.85	550.494	2889.079	5054.619
	5	2473.45	689.464	1117.336	3829.558
	6	6753.44	952.723	4879.521	8627.352
	7	6105.50	1401.529	3348.824	8862.170
	8	2181.90	2166.602	-2079.594	6443.401
	9	4032.57	1852.569	388.744	7676.395
	10	-4235.96	1405.556	-7000.551	-1471.363
	11	-8359.13	1610.415	-11526.660	-5191.596
Medium	1	177.21	242.407	-299.584	654.000
	2	270.68	210.542	-143.436	684.796
	3	-297.54	162.663	-617.488	22.399
	4	1275.73	385.868	516.767	2034.700
	5	820.66	483.279	-129.906	1771.223
	6	1835.32	667.810	521.805	3148.844
	7	1121.22	982.400	-811.063	3053.512
	8	1995.68	1518.677	-991.410	4982.775
	9	635.97	1298.556	-1918.165	3190.107
	10	-1567.39	985.223	-3505.232	370.447
	11	-2200.08	1128.819	-4420.357	20.199
High	1	447.27	339.881	-221.245	1115.784
	2	225.69	295.203	-354.945	806.326
	3	275.18	228.072	-173.411	723.779
	4	2905.32	541.030	1841.165	3969.471
	5	2427.99	677.610	1095.199	3760.788
	6	4652.23	936.343	2810.530	6493.923
	7	6177.75	1377.432	3468.478	8887.032

8	7061.80	2129.351	2873.573	11250.031
9	-5147.44	1820.717	-8728.617	-1566.264
10	-3311.21	1381.390	-6028.275	-594.152
11	-5736.54	1582.726	-8849.615	-2623.472

### ***General Linear Model with Level of Corporate Governance for Market Capitalization Annual Growth***

#### **Between-Subjects Factors**

	Value Label	N
Total Corp	1	Low
Gov Level	2	Medium
	3	High

#### **Tests of Within-Subjects Effects**

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	16607809161.852	10	1660780916.186	12.462	.000	.035
	Greenhouse-Geisser	16607809161.852	2.889	5749188758.799	12.462	.000	.035
	Huynh-Feldt	16607809161.852	2.933	5662671886.231	12.462	.000	.035
	Lower-bound	16607809161.852	1.000	16607809161.852	12.462	.000	.941
year * cgovtot_lvl	Sphericity Assumed	24701762750.705	20	1235088137.536	9.267	.000	.051
	Greenhouse-Geisser	24701762750.705	5.777	4275551800.507	9.267	.000	.051
	Huynh-Feldt	24701762750.705	5.866	4211211006.388	9.267	.000	.051
	Lower-bound	24701762750.705	2.000	12350881375.353	9.267	.000	.977
Error(year)	Sphericity Assumed	457119609600.610	3430	133271023.207			
	Greenhouse-Geisser	457119609600.610	990.832	461349393.547			
	Huynh-Feldt	457119609600.610	1005.970	454406760.705			

Lower-bound	457119609600.610	343.000	1332710232.072				
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a Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	2239227229.681	1	2239227229.681	28.128	.000	.076	1.000
	Quadratic	10976603241.873	1	10976603241.873	32.699	.000	.087	1.000
	Cubic	1681914560.940	1	1681914560.940	12.348	.001	.035	.939
year * cgovtot_lvl	Linear	3752833372.871	2	1876416686.436	23.571	.000	.121	1.000
	Quadratic	15851250207.293	2	7925625103.647	23.610	.000	.121	1.000
	Cubic	2101508581.305	2	1050754290.653	7.714	.001	.043	.948
Error(year)	Linear	27305332547.274	343	79607383.520				
	Quadratic	115140389882.369	343	335686267.879				
	Cubic	46719263154.241	343	136207764.298				

a Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
cgovtot_lvl	1080274169.481	2	540137084.741	13.302	.000	.072	.998
Error	13927845327.941	343	40605963.055				

a Computed using alpha = .05

### Estimated Marginal Means



## 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	152.248	217.400	-275.358	579.853
2	294.842	187.253	-73.467	663.152
3	-142.965	146.744	-431.597	145.668
4	2423.756	326.467	1781.627	3065.885
5	1679.311	422.825	847.654	2510.967
6	3932.310	572.704	2805.857	5058.764
7	3654.983	866.110	1951.428	5358.539
8	3460.684	1348.406	808.498	6112.871
9	11.092	1184.657	-2319.015	2341.200
10	-3099.341	847.356	-4766.010	-1432.672
11	-4792.843	979.308	-6719.048	-2866.638

### Pairwise Comparisons

Measure: MEASURE\_1

(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
					Upper Bound	Lower Bound
1	2	-142.595	244.730	1.000	-959.826	674.637
	3	295.212	285.869	1.000	-659.396	1249.821
	4	-2271.508(*)	404.050	.000	-3620.759	-922.257
	5	-1527.063	513.881	.160	-3243.075	188.950
	6	-3780.063(*)	627.107	.000	-5874.171	-1685.955
	7	-3502.735(*)	914.297	.008	-6555.862	-449.609
	8	-3308.436	1294.916	.457	-7632.570	1015.697

2	9	141.155	1283.798	1.000	-4145.853	4428.164
	10	3251.589(*)	889.352	.016	281.760	6221.418
	11	4945.091(*)	1003.106	.000	1595.404	8294.778
	1	142.595	244.730	1.000	-674.637	959.826
	3	437.807	247.018	.988	-387.066	1262.680
	4	-2128.913(*)	365.943	.000	-3350.912	-906.914
	5	-1384.468	425.955	.067	-2806.868	37.931
	6	-3637.468(*)	608.460	.000	-5669.307	-1605.629
	7	-3360.141(*)	901.075	.012	-6369.117	-351.165
	8	-3165.842	1340.777	.647	-7643.121	1311.437
	9	283.750	1228.835	1.000	-3819.720	4387.219
3	10	3394.183(*)	881.738	.008	449.782	6338.585
	11	5087.685(*)	1028.049	.000	1654.703	8520.668
	1	-295.212	285.869	1.000	-1249.821	659.396
	2	-437.807	247.018	.988	-1262.680	387.066
	4	-2566.720(*)	349.036	.000	-3732.262	-1401.178
	5	-1822.275(*)	435.803	.002	-3277.561	-366.990
	6	-4075.275(*)	598.152	.000	-6072.693	-2077.857
	7	-3797.948(*)	884.288	.001	-6750.866	-845.029
	8	-3603.649	1354.367	.363	-8126.308	919.010
	9	-154.057	1200.999	1.000	-4164.573	3856.459
	10	2956.376(*)	862.508	.037	76.191	5836.562
4	11	4649.878(*)	991.020	.000	1340.549	7959.208
	1	2271.508(*)	404.050	.000	922.257	3620.759
	2	2128.913(*)	365.943	.000	906.914	3350.912
	3	2566.720(*)	349.036	.000	1401.178	3732.262
	5	744.445	397.114	.970	-581.644	2070.534
	6	-1508.555(*)	425.931	.025	-2930.873	-86.237
	7	-1231.228	734.745	.996	-3684.775	1222.320
	8	-1036.928	1285.789	1.000	-5330.585	3256.728
	9	2412.663	1231.962	.944	-1701.248	6526.574
	10	5523.097(*)	1056.795	.000	1994.124	9052.069
	11	7216.599(*)	1189.648	.000	3243.987	11189.210

5	1	1527.063	513.881	.160	-188.950	3243.075
	2	1384.468	425.955	.067	-37.931	2806.868
	3	1822.275(*)	435.803	.002	366.990	3277.561
	4	-744.445	397.114	.970	-2070.534	581.644
	6	-2253.000(*)	570.215	.005	-4157.127	-348.872
	7	-1975.673	792.087	.516	-4620.703	669.357
	8	-1781.373	1330.761	1.000	-6225.207	2662.460
	9	1668.218	1264.608	1.000	-2554.710	5891.146
	10	4778.652(*)	1009.119	.000	1408.884	8148.420
	11	6472.154(*)	1248.188	.000	2304.059	10640.249
6	1	3780.063(*)	627.107	.000	1685.955	5874.171
	2	3637.468(*)	608.460	.000	1605.629	5669.307
	3	4075.275(*)	598.152	.000	2077.857	6072.693
	4	1508.555(*)	425.931	.025	86.237	2930.873
	5	2253.000(*)	570.215	.005	348.872	4157.127
	7	277.327	644.346	1.000	-1874.348	2429.002
	8	471.626	1267.167	1.000	-3759.845	4703.097
	9	3921.218	1312.264	.153	-460.847	8303.283
	10	7031.651(*)	1204.829	.000	3008.346	11054.956
	11	8725.153(*)	1426.630	.000	3961.185	13489.122
7	1	3502.735(*)	914.297	.008	449.609	6555.862
	2	3360.141(*)	901.075	.012	351.165	6369.117
	3	3797.948(*)	884.288	.001	845.029	6750.866
	4	1231.228	734.745	.996	-1222.320	3684.775
	5	1975.673	792.087	.516	-669.357	4620.703
	6	-277.327	644.346	1.000	-2429.002	1874.348
	8	194.299	1164.243	1.000	-3693.477	4082.075
	9	3643.891	1587.687	.711	-1657.901	8945.682
	10	6754.324(*)	1379.631	.000	2147.299	11361.349
	11	8447.826(*)	1758.183	.000	2576.696	14318.957
8	1	3308.436	1294.916	.457	-1015.697	7632.570
	2	3165.842	1340.777	.647	-1311.437	7643.121
	3	3603.649	1354.367	.363	-919.010	8126.308

9	4	1036.928	1285.789	1.000	-3256.728	5330.585
	5	1781.373	1330.761	1.000	-2662.460	6225.207
	6	-471.626	1267.167	1.000	-4703.097	3759.845
	7	-194.299	1164.243	1.000	-4082.075	3693.477
	9	3449.592	2214.377	.999	-3944.914	10844.097
	10	6560.025(*)	1863.204	.027	338.196	12781.855
	11	8253.527(*)	2082.403	.005	1299.723	15207.331
	1	-141.155	1283.798	1.000	-4428.164	4145.853
	2	-283.750	1228.835	1.000	-4387.219	3819.720
	3	154.057	1200.999	1.000	-3856.459	4164.573
	4	-2412.663	1231.962	.944	-6526.574	1701.248
10	5	-1668.218	1264.608	1.000	-5891.146	2554.710
	6	-3921.218	1312.264	.153	-8303.283	460.847
	7	-3643.891	1587.687	.711	-8945.682	1657.901
	8	-3449.592	2214.377	.999	-10844.097	3944.914
	10	3110.433	1543.001	.919	-2042.137	8263.004
	11	4803.936(*)	1417.088	.042	71.830	9536.041
	1	-3251.589(*)	889.352	.016	-6221.418	-281.760
	2	-3394.183(*)	881.738	.008	-6338.585	-449.782
	3	-2956.376(*)	862.508	.037	-5836.562	-76.191
	4	-5523.097(*)	1056.795	.000	-9052.069	-1994.124
	5	-4778.652(*)	1009.119	.000	-8148.420	-1408.884
11	6	-7031.651(*)	1204.829	.000	-11054.956	-3008.346
	7	-6754.324(*)	1379.631	.000	-11361.349	-2147.299
	8	-6560.025(*)	1863.204	.027	-12781.855	-338.196
	9	-3110.433	1543.001	.919	-8263.004	2042.137
	11	1693.502	1094.830	.999	-1962.483	5349.487
	1	-4945.091(*)	1003.106	.000	-8294.778	-1595.404
	2	-5087.685(*)	1028.049	.000	-8520.668	-1654.703
	3	-4649.878(*)	991.020	.000	-7959.208	-1340.549
	4	-7216.599(*)	1189.648	.000	-11189.210	-3243.987
	5	-6472.154(*)	1248.188	.000	-10640.249	-2304.059
	6	-8725.153(*)	1426.630	.000	-13489.122	-3961.185

7	-8447.826(*)	1758.183	.000	-14318.957	-2576.696
8	-8253.527(*)	2082.403	.005	-15207.331	-1299.723
9	-4803.936(*)	1417.088	.042	-9536.041	-71.830
10	-1693.502	1094.830	.999	-5349.487	1962.483

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total Corp Gov Level

### Estimates

Measure: MEASURE\_1

Total Corp Gov Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	1558.235	199.231	1166.366	1950.103
Medium	440.531	131.033	182.803	698.260
High	66.892	311.678	-546.150	679.933

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	98206742.680	2	49103371.340	13.302	.000	.072	.998
Error	1266167757.086	343	3691451.187				

The F tests the effect of Total Corp Gov Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total Corp Gov Level	(J) Total Corp Gov Level				Upper Bound	Lower Bound
Low	Medium	1117.703(*)	238.459	.000	545.532	1689.874
	High	1491.343(*)	369.914	.000	603.751	2378.935
Medium	Low	-1117.703(*)	238.459	.000	-1689.874	-545.532
	High	373.640	338.102	.611	-437.621	1184.901
High	Low	-1491.343(*)	369.914	.000	-2378.935	-603.751
	Medium	-373.640	338.102	.611	-1184.901	437.621

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

### 3. Total Corp Gov Level \* year

#### Estimates

Measure: MEASURE\_1

		Mean	Std. Error	95% Confidence Interval	
Total Corp Gov Level	year			Lower Bound	Upper Bound
Low	1	85.097	331.108	-566.161	736.354
	2	875.127	285.193	314.180	1436.075
	3	82.009	223.497	-357.588	521.605
	4	5635.668	497.220	4657.684	6613.652
	5	4205.966	643.977	2939.325	5472.607
	6	9090.530	872.247	7374.903	10806.157
	7	9110.337	1319.115	6515.765	11704.910
	8	8861.862	2053.668	4822.492	12901.231
	9	18.657	1804.273	-3530.176	3567.489
	10	-8883.951	1290.552	-11422.344	-6345.559

Medium	11	-	1491.519	-14874.395	-9007.046
		11940.721			
	1	234.433	217.767	-193.894	662.759
	2	183.587	187.569	-185.344	552.517
	3	-411.818	146.992	-700.937	-122.699
	4	1286.481	327.017	643.270	1929.693
	5	808.536	423.538	-24.523	1641.594
	6	1992.580	573.670	864.226	3120.933
	7	1914.378	867.571	207.949	3620.806
	8	1526.741	1350.680	-1129.918	4183.400
	9	-13.977	1186.655	-2348.014	2320.060
High	10	-455.706	848.785	-2125.185	1213.774
	11	-2219.388	980.959	-4148.841	-289.935
	1	137.214	517.987	-881.618	1156.045
	2	-174.187	446.158	-1051.737	703.363
	3	-99.085	349.640	-786.793	588.623
	4	349.117	777.854	-1180.847	1879.082
	5	23.431	1007.442	-1958.111	2004.972
	6	713.821	1364.550	-1970.117	3397.760
	7	-59.765	2063.632	-4118.732	3999.201
	8	-6.550	3212.773	-6325.767	6312.666
	9	28.598	2822.617	-5523.220	5580.415
	10	41.634	2018.949	-3929.444	4012.713
	11	-218.420	2333.342	-4807.881	4371.040

#### Multivariate Tests

Total Corp Gov Level		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power(a)
Low	Pillai's trace	.296	14.023(b)	10.000	334.000	.000	.296	1.000
	Wilks' lambda	.704	14.023(b)	10.000	334.000	.000	.296	1.000
	Hotelling's trace	.420	14.023(b)	10.000	334.000	.000	.296	1.000

Medium	Roy's largest root	.420	14.023(b)	10.000	334.000	.000	.296	1.000
	Pillai's trace	.083	3.029(b)	10.000	334.000	.001	.083	.982
	Wilks' lambda	.917	3.029(b)	10.000	334.000	.001	.083	.982
	Hotelling's trace	.091	3.029(b)	10.000	334.000	.001	.083	.982
High	Roy's largest root	.091	3.029(b)	10.000	334.000	.001	.083	.982
	Pillai's trace	.003	.117(b)	10.000	334.000	1.000	.003	.087
	Wilks' lambda	.997	.117(b)	10.000	334.000	1.000	.003	.087
	Hotelling's trace	.004	.117(b)	10.000	334.000	1.000	.003	.087
	Roy's largest root	.004	.117(b)	10.000	334.000	1.000	.003	.087

Each F tests the multivariate simple effects of year within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

b Exact statistic

### Pairwise Comparisons

Measure: MEASURE\_1

Total Corp Gov Level	(I) year	(J) year	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
			Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound
Low	1	2	-790.031	372.732	.857	-2034.702	454.640
		3	3.088	435.389	1.000	-1450.813	1456.989
		4	-5550.571(*)	615.382	.000	-7605.526	-3495.617
		5	-4120.869(*)	782.658	.000	-6734.414	-1507.324
		6	-9005.433(*)	955.105	.000	-12194.830	-5816.037
		7	-9025.241(*)	1392.505	.000	-13675.255	-4375.226
		8	-8776.765(*)	1972.200	.001	-15362.566	-2190.964
		9	66.440	1955.268	1.000	-6462.819	6595.698
		10	8969.048(*)	1354.514	.000	4445.898	13492.198
		11	12025.817(*)	1527.763	.000	6924.131	17127.504
		12	12025.817(*)	1527.763	.000	6924.131	17127.504
	2	1	790.031	372.732	.857	-454.640	2034.702
		3	793.119	376.217	.865	-463.191	2049.428
		4	-4760.541(*)	557.343	.000	-6621.686	-2899.395



3	5	-3330.838(*)	648.744	.000	-5497.201	-1164.476
	6	-8215.403(*)	926.704	.000	-11309.962	-5120.843
	7	-8235.210(*)	1372.368	.000	-12817.982	-3652.438
	8	-7986.734(*)	2042.048	.006	-14805.781	-1167.687
	9	856.471	1871.557	1.000	-5393.252	7106.193
	10	9759.079(*)	1342.916	.000	5274.657	14243.501
	11	12815.848(*)	1565.754	.000	7587.300	18044.396
	1	-3.088	435.389	1.000	-1456.989	1450.813
	2	-793.119	376.217	.865	-2049.428	463.191
	4	-5553.659(*)	531.594	.000	-7328.819	-3778.500
	5	-4123.957(*)	663.743	.000	-6340.406	-1907.508
4	6	-9008.521(*)	911.005	.000	-12050.655	-5966.387
	7	-9028.329(*)	1346.801	.000	-13525.723	-4530.934
	8	-8779.853(*)	2062.746	.001	-15668.015	-1891.691
	9	63.352	1829.162	1.000	-6044.799	6171.503
	10	8965.960(*)	1313.628	.000	4579.340	13352.580
	11	12022.730(*)	1509.357	.000	6982.509	17062.950
	1	5550.571(*)	615.382	.000	3495.617	7605.526
	2	4760.541(*)	557.343	.000	2899.395	6621.686
	3	5553.659(*)	531.594	.000	3778.500	7328.819
	5	1429.702	604.818	.645	-589.976	3449.381
	6	-3454.862(*)	648.707	.000	-5621.100	-1288.624
5	7	-3474.669	1119.042	.107	-7211.505	262.167
	8	-3226.194	1958.300	.997	-9765.577	3313.189
	9	5617.011	1876.319	.150	-648.613	11882.636
	10	14519.620(*)	1609.534	.000	9144.876	19894.363
	11	17576.389(*)	1811.874	.000	11525.967	23626.810
	1	4120.869(*)	782.658	.000	1507.324	6734.414
	2	3330.838(*)	648.744	.000	1164.476	5497.201
	3	4123.957(*)	663.743	.000	1907.508	6340.406
	4	-1429.702	604.818	.645	-3449.381	589.976
	6	-4884.564(*)	868.456	.000	-7784.615	-1984.514
	7	-4904.372(*)	1206.375	.003	-8932.841	-875.902

6	8	-4655.896	2026.794	.709	-11424.004	2112.212
	9	4187.309	1926.041	.817	-2244.353	10618.971
	10	13089.917(*)	1536.922	.000	7957.647	18222.187
	11	16146.687(*)	1901.032	.000	9798.538	22494.835
	1	9005.433(*)	955.105	.000	5816.037	12194.830
	2	8215.403(*)	926.704	.000	5120.843	11309.962
	3	9008.521(*)	911.005	.000	5966.387	12050.655
	4	3454.862(*)	648.707	.000	1288.624	5621.100
	5	4884.564(*)	868.456	.000	1984.514	7784.615
	7	-19.807	981.361	1.000	-3296.881	3257.266
	8	228.668	1929.938	1.000	-6216.004	6673.341
7	9	9071.873(*)	1998.622	.000	2397.841	15745.906
	10	17974.482(*)	1834.995	.000	11846.853	24102.111
	11	21031.251(*)	2172.805	.000	13775.566	28286.936
	1	9025.241(*)	1392.505	.000	4375.226	13675.255
	2	8235.210(*)	1372.368	.000	3652.438	12817.982
	3	9028.329(*)	1346.801	.000	4530.934	13525.723
	4	3474.669	1119.042	.107	-262.167	7211.505
	5	4904.372(*)	1206.375	.003	875.902	8932.841
	6	19.807	981.361	1.000	-3257.266	3296.881
	8	248.476	1773.181	1.000	-5672.738	6169.689
	9	9091.680(*)	2418.101	.011	1016.874	17166.487
8	10	17994.289(*)	2101.225	.000	10977.634	25010.943
	11	21051.058(*)	2677.772	.000	12109.129	29992.987
	1	8776.765(*)	1972.200	.001	2190.964	15362.566
	2	7986.734(*)	2042.048	.006	1167.687	14805.781
	3	8779.853(*)	2062.746	.001	1891.691	15668.015
	4	3226.194	1958.300	.997	-3313.189	9765.577
	5	4655.896	2026.794	.709	-2112.212	11424.004
	6	-228.668	1929.938	1.000	-6673.341	6216.004
	7	-248.476	1773.181	1.000	-6169.689	5672.738
	9	8843.205	3372.570	.396	-2418.876	20105.286
	10	17745.813(*)	2837.723	.000	8269.757	27221.869

Medium	9	11	20802.582(*)	3171.570	.000	10211.705	31393.460
		1	-66.440	1955.268	1.000	-6595.698	6462.819
		2	-856.471	1871.557	1.000	-7106.193	5393.252
		3	-63.352	1829.162	1.000	-6171.503	6044.799
		4	-5617.011	1876.319	.150	-11882.636	648.613
		5	-4187.309	1926.041	.817	-10618.971	2244.353
		6	-9071.873(*)	1998.622	.000	-15745.906	-2397.841
		7	-9091.680(*)	2418.101	.011	-17166.487	-1016.874
		8	-8843.205	3372.570	.396	-20105.286	2418.876
		10	8902.608(*)	2350.043	.010	1055.070	16750.146
		11	11959.378(*)	2158.272	.000	4752.222	19166.533
	10	1	-8969.048(*)	1354.514	.000	-13492.198	-4445.898
		2	-9759.079(*)	1342.916	.000	-14243.501	-5274.657
		3	-8965.960(*)	1313.628	.000	-13352.580	-4579.340
		4	-14519.620(*)	1609.534	.000	-19894.363	-9144.876
		5	-13089.917(*)	1536.922	.000	-18222.187	-7957.647
		6	-17974.482(*)	1834.995	.000	-24102.111	-11846.853
		7	-17994.289(*)	2101.225	.000	-25010.943	-10977.634
		8	-17745.813(*)	2837.723	.000	-27221.869	-8269.757
		9	-8902.608(*)	2350.043	.010	-16750.146	-1055.070
		11	3056.769	1667.463	.979	-2511.419	8624.957
	11	1	-12025.817(*)	1527.763	.000	-17127.504	-6924.131
		2	-12815.848(*)	1565.754	.000	-18044.396	-7587.300
		3	-12022.730(*)	1509.357	.000	-17062.950	-6982.509
		4	-17576.389(*)	1811.874	.000	-23626.810	-11525.967
		5	-16146.687(*)	1901.032	.000	-22494.835	-9798.538
		6	-21031.251(*)	2172.805	.000	-28286.936	-13775.566
		7	-21051.058(*)	2677.772	.000	-29992.987	-12109.129
		8	-20802.582(*)	3171.570	.000	-31393.460	-10211.705
		9	-11959.378(*)	2158.272	.000	-19166.533	-4752.222
		10	-3056.769	1667.463	.979	-8624.957	2511.419
	1	2	50.846	245.143	1.000	-767.764	869.456
		3	646.251	286.351	.747	-309.968	1602.469

2	4	-1052.048	404.731	.416	-2403.574	299.478
	5	-574.103	514.748	1.000	-2293.009	1144.804
	6	-1758.147	628.164	.258	-3855.786	339.492
	7	-1679.945	915.839	.979	-4738.220	1378.331
	8	-1292.308	1297.099	1.000	-5623.733	3039.118
	9	248.410	1285.963	1.000	-4045.828	4542.648
	10	690.139	890.852	1.000	-2284.699	3664.976
	11	2453.821	1004.797	.567	-901.515	5809.157
	1	-50.846	245.143	1.000	-869.456	767.764
	3	595.404	247.435	.603	-230.860	1421.669
	4	-1102.894	366.560	.144	-2326.954	121.165
3	5	-624.949	426.674	1.000	-2049.747	799.849
	6	-1808.993	609.486	.162	-3844.258	226.273
	7	-1730.791	902.595	.958	-4744.841	1283.259
	8	-1343.154	1343.038	1.000	-5827.983	3141.676
	9	197.564	1230.907	1.000	-3912.825	4307.953
	10	639.293	883.225	1.000	-2310.074	3588.659
	11	2402.975	1029.783	.675	-1035.797	5841.746
	1	-646.251	286.351	.747	-1602.469	309.968
	2	-595.404	247.435	.603	-1421.669	230.860
	4	-1698.299(*)	349.625	.000	-2865.806	-530.792
	5	-1220.353	436.538	.261	-2678.093	237.386
4	6	-2404.397(*)	599.160	.004	-4405.183	-403.611
	7	-2326.195	885.779	.393	-5284.094	631.703
	8	-1938.558	1356.650	1.000	-6468.844	2591.727
	9	-397.840	1203.024	1.000	-4415.119	3619.439
	10	43.888	863.962	1.000	-2841.155	2928.931
	11	1807.570	992.691	.981	-1507.340	5122.480
	1	1052.048	404.731	.416	-299.478	2403.574
	2	1102.894	366.560	.144	-121.165	2326.954
	3	1698.299(*)	349.625	.000	530.792	2865.806
	5	477.946	397.784	1.000	-850.380	1806.271
	6	-706.098	426.649	.997	-2130.815	718.618

5	7	-627.896	735.984	1.000	-3085.582	1829.789
	8	-240.259	1287.957	1.000	-4541.156	4060.637
	9	1300.459	1234.039	1.000	-2820.389	5421.307
	10	1742.187	1058.577	.997	-1792.736	5277.110
	11	3505.869	1191.654	.175	-473.442	7485.180
	1	574.103	514.748	1.000	-1144.804	2293.009
	2	624.949	426.674	1.000	-799.849	2049.747
	3	1220.353	436.538	.261	-237.386	2678.093
	4	-477.946	397.784	1.000	-1806.271	850.380
	6	-1184.044	571.176	.887	-3091.383	723.294
	7	-1105.842	793.423	1.000	-3755.333	1543.648
6	8	-718.205	1333.005	1.000	-5169.532	3733.122
	9	822.513	1266.741	1.000	-3407.536	5052.562
	10	1264.241	1010.821	1.000	-2111.209	4639.692
	11	3027.923	1250.293	.587	-1147.200	7203.047
	1	1758.147	628.164	.258	-339.492	3855.786
	2	1808.993	609.486	.162	-226.273	3844.258
	3	2404.397(*)	599.160	.004	403.611	4405.183
	4	706.098	426.649	.997	-718.618	2130.815
	5	1184.044	571.176	.887	-723.294	3091.383
	7	78.202	645.433	1.000	-2077.101	2233.506
	8	465.839	1269.304	1.000	-3772.768	4704.446
7	9	2006.557	1314.477	.999	-2382.897	6396.012
	10	2448.285	1206.861	.912	-1581.804	6478.375
	11	4211.968	1429.036	.172	-560.035	8983.970
	1	1679.945	915.839	.979	-1378.331	4738.220
	2	1730.791	902.595	.958	-1283.259	4744.841
	3	2326.195	885.779	.393	-631.703	5284.094
	4	627.896	735.984	1.000	-1829.789	3085.582
	5	1105.842	793.423	1.000	-1543.648	3755.333
	6	-78.202	645.433	1.000	-2233.506	2077.101
	8	387.637	1166.206	1.000	-3506.695	4281.969
	9	1928.355	1590.365	1.000	-3382.377	7239.087

8	10	2370.083	1381.958	.993	-2244.711	6984.877
	11	4133.766	1761.148	.661	-1747.265	10014.797
	1	1292.308	1297.099	1.000	-3039.118	5623.733
	2	1343.154	1343.038	1.000	-3141.676	5827.983
	3	1938.558	1356.650	1.000	-2591.727	6468.844
	4	240.259	1287.957	1.000	-4060.637	4541.156
	5	718.205	1333.005	1.000	-3733.122	5169.532
	6	-465.839	1269.304	1.000	-4704.446	3772.768
	7	-387.637	1166.206	1.000	-4281.969	3506.695
	9	1540.718	2218.111	1.000	-5866.257	8947.693
	10	1982.446	1866.346	1.000	-4249.875	8214.768
9	11	3746.129	2085.915	.985	-3219.402	10711.659
	1	-248.410	1285.963	1.000	-4542.648	4045.828
	2	-197.564	1230.907	1.000	-4307.953	3912.825
	3	397.840	1203.024	1.000	-3619.439	4415.119
	4	-1300.459	1234.039	1.000	-5421.307	2820.389
	5	-822.513	1266.741	1.000	-5052.562	3407.536
	6	-2006.557	1314.477	.999	-6396.012	2382.897
	7	-1928.355	1590.365	1.000	-7239.087	3382.377
	8	-1540.718	2218.111	1.000	-8947.693	5866.257
	10	441.728	1545.603	1.000	-4719.531	5602.987
	11	2205.411	1419.477	.999	-2534.674	6945.496
10	1	-690.139	890.852	1.000	-3664.976	2284.699
	2	-639.293	883.225	1.000	-3588.659	2310.074
	3	-43.888	863.962	1.000	-2928.931	2841.155
	4	-1742.187	1058.577	.997	-5277.110	1792.736
	5	-1264.241	1010.821	1.000	-4639.692	2111.209
	6	-2448.285	1206.861	.912	-6478.375	1581.804
	7	-2370.083	1381.958	.993	-6984.877	2244.711
	8	-1982.446	1866.346	1.000	-8214.768	4249.875
	9	-441.728	1545.603	1.000	-5602.987	4719.531
	11	1763.682	1096.676	.998	-1898.468	5425.832
	11	1	-2453.821	1004.797	.567	-5809.157

High	1	2	-2402.975	1029.783	.675	-5841.746	1035.797
		3	-1807.570	992.691	.981	-5122.480	1507.340
		4	-3505.869	1191.654	.175	-7485.180	473.442
		5	-3027.923	1250.293	.587	-7203.047	1147.200
		6	-4211.968	1429.036	.172	-8983.970	560.035
		7	-4133.766	1761.148	.661	-10014.797	1747.265
		8	-3746.129	2085.915	.985	-10711.659	3219.402
		9	-2205.411	1419.477	.999	-6945.496	2534.674
		10	-1763.682	1096.676	.998	-5425.832	1898.468
		2	311.401	583.105	1.000	-1635.771	2258.573
	2	3	236.299	681.125	1.000	-2038.193	2510.791
		4	-211.904	962.707	1.000	-3426.688	3002.881
		5	113.783	1224.396	1.000	-3974.864	4202.430
		6	-576.608	1494.172	1.000	-5566.122	4412.906
		7	196.979	2178.444	1.000	-7077.535	7471.494
		8	143.764	3085.323	1.000	-10159.107	10446.635
		9	108.616	3058.834	1.000	-10105.800	10323.032
		10	95.580	2119.010	1.000	-6980.466	7171.625
		11	355.634	2390.043	1.000	-7625.478	8336.747
		1	-311.401	583.105	1.000	-2258.573	1635.771
	3	3	-75.102	588.557	1.000	-2040.481	1890.277
		4	-523.304	871.911	1.000	-3434.893	2388.284
		5	-197.618	1014.900	1.000	-3586.689	3191.454
		6	-888.009	1449.743	1.000	-5729.158	3953.141
		7	-114.422	2146.942	1.000	-7283.741	7054.897
		8	-167.637	3194.594	1.000	-10835.400	10500.126
		9	-202.785	2927.877	1.000	-9979.892	9574.322
		10	-215.821	2100.867	1.000	-7231.282	6799.639
		11	44.233	2449.476	1.000	-8135.342	8223.809
		1	-236.299	681.125	1.000	-2510.791	2038.193
		2	75.102	588.557	1.000	-1890.277	2040.481
		4	-448.202	831.629	1.000	-3225.274	2328.869
		5	-122.515	1038.364	1.000	-3589.943	3344.912

4	6	-812.906	1425.182	1.000	-5572.042	3946.229
	7	-39.320	2106.944	1.000	-7075.074	6996.435
	8	-92.535	3226.974	1.000	-10868.422	10683.352
	9	-127.683	2861.553	1.000	-9683.315	9427.949
	10	-140.719	2055.048	1.000	-7003.177	6721.738
	11	119.336	2361.248	1.000	-7765.619	8004.290
	1	211.904	962.707	1.000	-3002.881	3426.688
	2	523.304	871.911	1.000	-2388.284	3434.893
	3	448.202	831.629	1.000	-2328.869	3225.274
	5	325.687	946.181	1.000	-2833.912	3485.285
	6	-364.704	1014.842	1.000	-3753.581	3024.173
5	7	408.883	1750.637	1.000	-5437.049	6254.814
	8	355.667	3063.577	1.000	-9874.587	10585.922
	9	320.519	2935.327	1.000	-9481.466	10122.505
	10	307.483	2517.966	1.000	-8100.802	8715.768
	11	567.538	2834.508	1.000	-8897.782	10032.858
	1	-113.783	1224.396	1.000	-4202.430	3974.864
	2	197.618	1014.900	1.000	-3191.454	3586.689
	3	122.515	1038.364	1.000	-3344.912	3589.943
	4	-325.687	946.181	1.000	-3485.285	2833.912
	6	-690.391	1358.619	1.000	-5227.249	3846.468
	7	83.196	1887.262	1.000	-6218.969	6385.361
6	8	29.981	3170.730	1.000	-10558.093	10618.054
	9	-5.167	3013.112	1.000	-10066.902	10056.567
	10	-18.204	2404.371	1.000	-8047.162	8010.754
	11	241.851	2973.988	1.000	-9689.236	10172.938
	1	576.608	1494.172	1.000	-4412.906	5566.122
	2	888.009	1449.743	1.000	-3953.141	5729.158
	3	812.906	1425.182	1.000	-3946.229	5572.042
	4	364.704	1014.842	1.000	-3024.173	3753.581
	5	690.391	1358.619	1.000	-3846.468	5227.249
	7	773.587	1535.247	1.000	-4353.089	5900.263
	8	720.371	3019.207	1.000	-9361.718	10802.461



7	9	685.223	3126.658	1.000	-9755.678	11126.125
	10	672.187	2870.678	1.000	-8913.917	10258.291
	11	932.242	3399.151	1.000	-10418.601	12283.084
	1	-196.979	2178.444	1.000	-7471.494	7077.535
	2	114.422	2146.942	1.000	-7054.897	7283.741
	3	39.320	2106.944	1.000	-6996.435	7075.074
	4	-408.883	1750.637	1.000	-6254.814	5437.049
	5	-83.196	1887.262	1.000	-6385.361	6218.969
	6	-773.587	1535.247	1.000	-5900.263	4353.089
	8	-53.215	2773.976	1.000	-9316.401	9209.970
	9	-88.363	3782.894	1.000	-12720.645	12543.918
8	10	-101.400	3287.170	1.000	-11078.301	10875.502
	11	158.655	4189.125	1.000	-13830.159	14147.469
	1	-143.764	3085.323	1.000	-10446.635	10159.107
	2	167.637	3194.594	1.000	-10500.126	10835.400
	3	92.535	3226.974	1.000	-10683.352	10868.422
	4	-355.667	3063.577	1.000	-10585.922	9874.587
	5	-29.981	3170.730	1.000	-10618.054	10558.093
	6	-720.371	3019.207	1.000	-10802.461	9361.718
	7	53.215	2773.976	1.000	-9209.970	9316.401
	9	-35.148	5276.072	1.000	-17653.623	17583.327
	10	-48.184	4439.353	1.000	-14872.590	14776.221
9	11	211.870	4961.626	1.000	-16356.570	16780.310
	1	-108.616	3058.834	1.000	-10323.032	10105.800
	2	202.785	2927.877	1.000	-9574.322	9979.892
	3	127.683	2861.553	1.000	-9427.949	9683.315
	4	-320.519	2935.327	1.000	-10122.505	9481.466
	5	5.167	3013.112	1.000	-10056.567	10066.902
	6	-685.223	3126.658	1.000	-11126.125	9755.678
	7	88.363	3782.894	1.000	-12543.918	12720.645
	8	35.148	5276.072	1.000	-17583.327	17653.623
	10	-13.036	3676.423	1.000	-12289.778	12263.705
	11	247.018	3376.416	1.000	-11027.904	11521.941

10	1	-95.580	2119.010	1.000	-7171.625	6980.466
	2	215.821	2100.867	1.000	-6799.639	7231.282
	3	140.719	2055.048	1.000	-6721.738	7003.177
	4	-307.483	2517.966	1.000	-8715.768	8100.802
	5	18.204	2404.371	1.000	-8010.754	8047.162
	6	-672.187	2870.678	1.000	-10258.291	8913.917
	7	101.400	3287.170	1.000	-10875.502	11078.301
	8	48.184	4439.353	1.000	-14776.221	14872.590
	9	13.036	3676.423	1.000	-12263.705	12289.778
	11	260.055	2608.591	1.000	-8450.856	8970.966
11	1	-355.634	2390.043	1.000	-8336.747	7625.478
	2	-44.233	2449.476	1.000	-8223.809	8135.342
	3	-119.336	2361.248	1.000	-8004.290	7765.619
	4	-567.538	2834.508	1.000	-10032.858	8897.782
	5	-241.851	2973.988	1.000	-10172.938	9689.236
	6	-932.242	3399.151	1.000	-12283.084	10418.601
	7	-158.655	4189.125	1.000	-14147.469	13830.159
	8	-211.870	4961.626	1.000	-16780.310	16356.570
	9	-247.018	3376.416	1.000	-11521.941	11027.904
	10	-260.055	2608.591	1.000	-8970.966	8450.856

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## Estimated Marginal Means

### 3. Total Corp Gov Level \* year

#### Estimates

Measure: MEASURE\_1

Total Corp Gov Level    year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound

Low	1	85.097	331.108	-566.161	736.354
	2	875.127	285.193	314.180	1436.075
	3	82.009	223.497	-357.588	521.605
	4	5635.668	497.220	4657.684	6613.652
	5	4205.966	643.977	2939.325	5472.607
	6	9090.530	872.247	7374.903	10806.157
	7	9110.337	1319.115	6515.765	11704.910
	8	8861.862	2053.668	4822.492	12901.231
	9	18.657	1804.273	-3530.176	3567.489
	10	-8883.951	1290.552	-11422.344	-6345.559
	11	-			
Medium		11940.721	1491.519	-14874.395	-9007.046
	1	234.433	217.767	-193.894	662.759
	2	183.587	187.569	-185.344	552.517
	3	-411.818	146.992	-700.937	-122.699
	4	1286.481	327.017	643.270	1929.693
	5	808.536	423.538	-24.523	1641.594
	6	1992.580	573.670	864.226	3120.933
	7	1914.378	867.571	207.949	3620.806
	8	1526.741	1350.680	-1129.918	4183.400
	9	-13.977	1186.655	-2348.014	2320.060
	10	-455.706	848.785	-2125.185	1213.774
High	11	-2219.388	980.959	-4148.841	-289.935
	1	137.214	517.987	-881.618	1156.045
	2	-174.187	446.158	-1051.737	703.363
	3	-99.085	349.640	-786.793	588.623
	4	349.117	777.854	-1180.847	1879.082
	5	23.431	1007.442	-1958.111	2004.972
	6	713.821	1364.550	-1970.117	3397.760
	7	-59.765	2063.632	-4118.732	3999.201
	8	-6.550	3212.773	-6325.767	6312.666
	9	28.598	2822.617	-5523.220	5580.415
	10	41.634	2018.949	-3929.444	4012.713

11	-218.420	2333.342	-4807.881	4371.040
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### Univariate Tests

Measure: MEASURE\_1

year		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
1	Contrast	1539691.489	2	769845.744	.076	.927	.000	.061
	Error	3497163626.356	343	10195812.322				
2	Contrast	41904927.876	2	20952463.938	2.770	.064	.016	.544
	Error	2594509068.916	343	7564166.382				
3	Contrast	16737024.447	2	8368512.223	1.801	.167	.010	.376
	Error	1593379450.560	343	4645421.139				
4	Contrast	1399304635.458	2	699652317.729	30.430	.000	.151	1.000
	Error	7886314861.011	343	22992171.606				
5	Contrast	860263679.375	2	430131839.688	11.153	.000	.061	.992
	Error	13228711962.390	343	38567673.360				
6	Contrast	3666774519.097	2	1833387259.549	25.911	.000	.131	1.000
	Error	24269255999.589	343	70755848.395				
7	Contrast	3943338535.066	2	1971669267.533	12.184	.000	.066	.995
	Error	55506299039.705	343	161825944.722				
8	Contrast	3968101532.848	2	1984050766.424	5.058	.007	.029	.817
	Error	134535762299.877	343	392232543.149				
9	Contrast	105356.297	2	52678.148	.000	1.000	.000	.050
	Error	103844050780.054	343	302752334.636				
10	Contrast	4924601559.779	2	2462300779.890	15.897	.000	.085	1.000
	Error	53128587255.782	343	154893840.396				
11	Contrast	6959365458.458	2	3479682729.229	16.819	.000	.089	1.000
	Error	70963420584.317	343	206890439.021				

Each F tests the simple effects of Total Corp Gov Level within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

### Pairwise Comparisons

Measure: MEASURE\_1

year	(I) Total Corp Gov Level	(J) Total Corp Gov Level	Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
						Upper Bound	Lower Bound
1	Low	Medium	-149.336	396.301	.975	-1100.244	801.571
		High	-52.117	614.771	1.000	-1527.232	1422.998
	Medium	Low	149.336	396.301	.975	-801.571	1100.244
		High	97.219	561.901	.997	-1251.038	1445.476
	High	Low	52.117	614.771	1.000	-1422.998	1527.232
		Medium	-97.219	561.901	.997	-1445.476	1251.038
2	Low	Medium	691.541	341.346	.125	-127.504	1510.586
		High	1049.315	529.521	.138	-221.246	2319.876
	Medium	Low	-691.541	341.346	.125	-1510.586	127.504
		High	357.774	483.983	.843	-803.520	1519.068
	High	Low	-1049.315	529.521	.138	-2319.876	221.246
		Medium	-357.774	483.983	.843	-1519.068	803.520
3	Low	Medium	493.827	267.502	.185	-148.033	1135.686
		High	181.094	414.968	.962	-814.604	1176.792
	Medium	Low	-493.827	267.502	.185	-1135.686	148.033
		High	-312.733	379.282	.795	-1222.802	597.336
	High	Low	-181.094	414.968	.962	-1176.792	814.604
		Medium	312.733	379.282	.795	-597.336	1222.802
4	Low	Medium	4349.187(*)	595.120	.000	2921.223	5777.151
		High	5286.551(*)	923.193	.000	3071.392	7501.710
	Medium	Low	-4349.187(*)	595.120	.000	-5777.151	-2921.223
		High	937.364	843.799	.607	-1087.295	2962.023
	High	Low	-5286.551(*)	923.193	.000	-7501.710	-3071.392
		Medium	-937.364	843.799	.607	-2962.023	1087.295
5	Low	Medium	3397.430(*)	770.773	.000	1547.996	5246.865
		High	4182.535(*)	1195.678	.002	1313.561	7051.510
	Medium	Low	-3397.430(*)	770.773	.000	-5246.865	-1547.996
		High	785.105	1092.851	.854	-1837.142	3407.352
	High	Low	-4182.535(*)	1195.678	.002	-7051.510	-1313.561

6	Low	Medium	-785.105	1092.851	.854	-3407.352	1837.142
		Medium	7097.950(*)	1043.989	.000	4592.946	9602.954
		High	8376.709(*)	1619.510	.000	4490.768	12262.649
	Medium	Low	-7097.950(*)	1043.989	.000	-9602.954	-4592.946
		High	1278.758	1480.234	.771	-2272.996	4830.513
		Low	-8376.709(*)	1619.510	.000	-12262.649	-4490.768
7	Low	Medium	-1278.758	1480.234	.771	-4830.513	2272.996
		Medium	7195.960(*)	1578.842	.000	3407.599	10984.320
		High	9170.103(*)	2449.212	.001	3293.328	15046.877
	Medium	Low	-7195.960(*)	1578.842	.000	-10984.320	-3407.599
		High	1974.143	2238.584	.760	-3397.237	7345.523
		Low	-9170.103(*)	2449.212	.001	-15046.877	-3293.328
8	Low	Medium	-1974.143	2238.584	.760	-7345.523	3397.237
		Medium	7335.121(*)	2458.026	.009	1437.199	13233.043
		High	8868.412	3813.065	.061	-280.865	18017.689
	Medium	Low	-7335.121(*)	2458.026	.009	-13233.043	-1437.199
		High	1533.291	3485.147	.961	-6829.161	9895.743
		Low	-8868.412	3813.065	.061	-18017.689	280.865
9	Low	Medium	-1533.291	3485.147	.961	-9895.743	6829.161
		Medium	32.634	2159.526	1.000	-5149.050	5214.319
		High	-9.941	3350.010	1.000	-8048.139	8028.257
	Medium	Low	-32.634	2159.526	1.000	-5214.319	5149.050
		High	-42.575	3061.914	1.000	-7389.500	7304.349
		Low	9.941	3350.010	1.000	-8028.257	8048.139
10	Low	Medium	42.575	3061.914	1.000	-7304.349	7389.500
		Medium	-8428.246(*)	1544.656	.000	-12134.578	-4721.914
		High	-8925.586(*)	2396.180	.001	-14675.112	-3176.060
	Medium	Low	8428.246(*)	1544.656	.000	4721.914	12134.578
		High	-497.340	2190.112	.994	-5752.415	4757.735
		Low	8925.586(*)	2396.180	.001	3176.060	14675.112
11	Low	Medium	497.340	2190.112	.994	-4757.735	5752.415
		Medium	-9721.333(*)	1785.192	.000	-14004.820	-5437.846
		High	-11722.300(*)	2769.316	.000	-18367.150	-5077.450
	Medium	Low	9721.333(*)	1785.192	.000	5437.846	14004.820
		High	-2000.967	2531.159	.815	-8074.369	4072.434

High	Low	11722.300(*)	2769.316	.000	5077.450	18367.150
	Medium	2000.967	2531.159	.815	-4072.434	8074.369

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 1	Low	93

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	6547006507.613	1	6547006507.613	25.371	.000	.216	.999
	Quadratic	29730524431.131	1	29730524431.131	28.864	.000	.239	1.000
	Cubic	4267611312.228	1	4267611312.228	11.660	.001	.112	.922

a Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 2	Medium	215

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	283635013.465	1	283635013.465	17.129	.000	.074	.985
	Quadratic	2134444408.679	1	2134444408.679	22.477	.000	.095	.997
	Cubic	496556512.472	1	496556512.472	8.172	.005	.037	.812

a. Computed using alpha = .05

#### Between-Subjects Factors

	Value Label	N
Total Corp Gov Level 3	High	38

#### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	607741.494	1	607741.494	1.046	.313	.027	.169
	Quadratic	5174997.874	1	5174997.874	3.404	.073	.084	.435
	Cubic	260968.286	1	260968.286	.221	.641	.006	.074

a. Computed using alpha = .05

### ***General Linear Model with Level of Total CSR for Market Capitalization Annual Growth***

#### Between-Subjects Factors

	Value Label	N
Total CSR 1	Low	86



Level	2	Medium	172
	3	High	88

### Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Sphericity Assumed	2688884115.1833	10	2688884115.184	19.466	.000	.054	1.000
	Greenhouse-Geisser	2688884115.1833	2.838	9475131389.039	19.466	.000	.054	1.000
	Huynh-Feldt	2688884115.1833	2.881	9334276528.492	19.466	.000	.054	1.000
	Lower-bound	2688884115.1833	1	2688884115.1833	19.466	.000	.054	.993
year * CSRtot_level	Sphericity Assumed	8015294417.848	20	400764720.893	2.901	.000	.017	1.000
	Greenhouse-Geisser	8015294417.848	5.676	1412220915.400	2.901	.010	.017	.884
	Huynh-Feldt	8015294417.848	5.761	1391227203.341	2.901	.009	.017	.888
	Lower-bound	8015294417.848	2	400764720.8924	2.901	.056	.017	.565
Error(year)	Sphericity Assumed	4738060779.33.468	3430	138135882.780				
	Greenhouse-Geisser	4738060779.33.468	973.377	486765357.974				
	Huynh-Feldt	4738060779.33.468	988.065	479529229.650				
	Lower-bound	4738060779.33.468	343	1381358827.795				

a. Computed using alpha = .05

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	year	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
year	Linear	3453694686.779	1	3453694686.779	38.630	.000	.101	1.000
	Quadratic	17296978376.098	1	17296978376.098	45.750	.000	.118	1.000
	Cubic	3076957296.798	1	3076957296.798	21.854	.000	.060	.997
year * CSRtot_level	Linear	392752244.256	2	196376122.128	2.197	.113	.013	.448
	Quadratic	1312358876.212	2	656179438.106	1.736	.178	.010	.363
	Cubic	527105245.597	2	263552622.798	1.872	.155	.011	.389
Error(year)	Linear	30665413675.888	343	89403538.414				
	Quadratic	12967928121.345	343	378073706.162				
	Cubic	48293666489.949	343	140797861.487				

a. Computed using alpha = .05

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
CSRtot_level	77274483.442	2	38637241.721	.888	.413	.005	.203
Error	14930845013.981	343	43530160.391				

a. Computed using alpha = .05

## Estimated Marginal Means

### 1. year

### Estimates

Measure: MEASURE\_1

year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	230.039	179.954	-123.912	583.991
2	370.147	156.063	63.186	677.107
3	-204.285	122.091	-444.427	35.857
4	2458.085	293.785	1880.239	3035.932
5	1792.816	361.556	1081.669	2503.962
6	3889.703	510.050	2886.485	4892.922
7	3948.385	741.417	2490.090	5406.681
8	4176.357	1126.714	1960.219	6392.495
9	-544.434	967.035	-2446.500	1357.632
10	-2740.580	734.843	-4185.945	-1295.214
11	-5169.757	846.967	-6835.660	-3503.854

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) year	(J) year				Upper Bound	Lower Bound
1	2	-140.107	202.660	1.000	-816.852	536.637
	3	434.324	238.024	.980	-360.512	1229.160
	4	-2228.046(*)	355.191	.000	-3414.140	-1041.952
	5	-1562.776(*)	436.274	.021	-3019.633	-105.919
	6	-3659.664(*)	553.510	.000	-5508.010	-1811.318
	7	-3718.346(*)	782.307	.000	-6330.716	-1105.976
	8	-3946.318(*)	1084.540	.017	-7567.941	-324.694

2	9	774.474	1047.812	1.000	-2724.504	4273.451
	10	2970.619(*)	767.842	.007	406.551	5534.687
	11	5399.797(*)	864.356	.000	2513.438	8286.155
	1	140.107	202.660	1.000	-536.637	816.852
	3	574.432	204.506	.252	-108.479	1257.343
	4	-2087.938(*)	318.074	.000	-3150.089	-1025.788
	5	-1422.669(*)	360.014	.005	-2624.868	-220.469
	6	-3519.557(*)	531.720	.000	-5295.137	-1743.976
	7	-3578.238(*)	764.521	.000	-6131.215	-1025.262
	8	-3806.210(*)	1117.570	.040	-7538.131	-74.289
	9	914.581	1006.000	1.000	-2444.771	4273.934
3	10	3110.727(*)	766.846	.003	549.986	5671.467
	11	5539.904(*)	890.529	.000	2566.146	8513.662
	1	-434.324	238.024	.980	-1229.160	360.512
	2	-574.432	204.506	.252	-1257.343	108.479
	4	-2662.370(*)	307.795	.000	-3690.197	-1634.544
	5	-1997.100(*)	370.106	.000	-3233.001	-761.200
	6	-4093.988(*)	526.410	.000	-5851.838	-2336.138
	7	-4152.670(*)	754.551	.000	-6672.353	-1632.987
	8	-4380.642(*)	1131.071	.007	-8157.645	-603.639
	9	340.149	978.849	1.000	-2928.539	3608.838
	10	2536.295(*)	750.414	.044	30.426	5042.164
4	11	4965.472(*)	858.848	.000	2097.506	7833.439
	1	2228.046(*)	355.191	.000	1041.952	3414.140
	2	2087.938(*)	318.074	.000	1025.788	3150.089
	3	2662.370(*)	307.795	.000	1634.544	3690.197
	5	665.270	330.777	.921	-439.298	1769.837
	6	-1431.618(*)	360.891	.005	-2636.748	-226.488
	7	-1490.300	612.614	.576	-3536.011	555.411
	8	-1718.272	1062.830	.998	-5267.398	1830.855
	9	3002.520	1011.765	.162	-376.084	6381.123
	10	5198.665(*)	936.068	.000	2072.838	8324.492
	11	7627.843(*)	1048.673	.000	4125.990	11129.695

5	1	1562.776(*)	436.274	.021	105.919	3019.633
	2	1422.669(*)	360.014	.005	220.469	2624.868
	3	1997.100(*)	370.106	.000	761.200	3233.001
	4	-665.270	330.777	.921	-1769.837	439.298
	6	-2096.888(*)	483.296	.001	-3710.767	-483.009
	7	-2155.570	663.922	.068	-4372.615	61.475
	8	-2383.541	1103.446	.828	-6068.296	1301.213
	9	2337.250	1035.695	.747	-1121.265	5795.765
	10	4533.395(*)	889.961	.000	1561.534	7505.256
	11	6962.573(*)	1085.598	.000	3337.418	10587.728
6	1	3659.664(*)	553.510	.000	1811.318	5508.010
	2	3519.557(*)	531.720	.000	1743.976	5295.137
	3	4093.988(*)	526.410	.000	2336.138	5851.838
	4	1431.618(*)	360.891	.005	226.488	2636.748
	5	2096.888(*)	483.296	.001	483.009	3710.767
	7	-58.682	532.285	1.000	-1836.150	1718.786
	8	-286.654	1044.770	1.000	-3775.471	3202.164
	9	4434.138(*)	1088.960	.003	797.755	8070.520
	10	6630.283(*)	1076.249	.000	3036.346	10224.220
	11	9059.461(*)	1258.513	.000	4856.887	13262.034
7	1	3718.346(*)	782.307	.000	1105.976	6330.716
	2	3578.238(*)	764.521	.000	1025.262	6131.215
	3	4152.670(*)	754.551	.000	1632.987	6672.353
	4	1490.300	612.614	.576	-555.411	3536.011
	5	2155.570	663.922	.068	-61.475	4372.615
	6	58.682	532.285	1.000	-1718.786	1836.150
	8	-227.972	963.042	1.000	-3443.874	2987.931
	9	4492.820(*)	1309.052	.036	121.481	8864.158
	10	6688.965(*)	1213.989	.000	2635.072	10742.858
	11	9118.142(*)	1519.937	.000	4042.590	14193.695
8	1	3946.318(*)	1084.540	.017	324.694	7567.941
	2	3806.210(*)	1117.570	.040	74.289	7538.131
	3	4380.642(*)	1131.071	.007	603.639	8157.645

9	4	1718.272	1062.830	.998	-1830.855	5267.398
	5	2383.541	1103.446	.828	-1301.213	6068.296
	6	286.654	1044.770	1.000	-3202.164	3775.471
	7	227.972	963.042	1.000	-2987.931	3443.874
	9	4720.791	1823.790	.426	-1369.421	10811.003
	10	6916.937(*)	1592.651	.001	1598.572	12235.301
	11	9346.114(*)	1770.490	.000	3433.888	15258.340
	1	-774.474	1047.812	1.000	-4273.451	2724.504
	2	-914.581	1006.000	1.000	-4273.934	2444.771
	3	-340.149	978.849	1.000	-3608.838	2928.539
	4	-3002.520	1011.765	.162	-6381.123	376.084
10	5	-2337.250	1035.695	.747	-5795.765	1121.265
	6	-4434.138(*)	1088.960	.003	-8070.520	-797.755
	7	-4492.820(*)	1309.052	.036	-8864.158	-121.481
	8	-4720.791	1823.790	.426	-10811.003	1369.421
	10	2196.145	1282.396	.994	-2086.180	6478.471
	11	4625.323(*)	1191.558	.007	646.332	8604.314
	1	-2970.619(*)	767.842	.007	-5534.687	-406.551
	2	-3110.727(*)	766.846	.003	-5671.467	-549.986
	3	-2536.295(*)	750.414	.044	-5042.164	-30.426
	4	-5198.665(*)	936.068	.000	-8324.492	-2072.838
	5	-4533.395(*)	889.961	.000	-7505.256	-1561.534
11	6	-6630.283(*)	1076.249	.000	-10224.220	-3036.346
	7	-6688.965(*)	1213.989	.000	-10742.858	-2635.072
	8	-6916.937(*)	1592.651	.001	-12235.301	-1598.572
	9	-2196.145	1282.396	.994	-6478.471	2086.180
	11	2429.178	906.863	.348	-599.125	5457.480
	1	-5399.797(*)	864.356	.000	-8286.155	-2513.438
	2	-5539.904(*)	890.529	.000	-8513.662	-2566.146
	3	-4965.472(*)	858.848	.000	-7833.439	-2097.506
	4	-7627.843(*)	1048.673	.000	-11129.695	-4125.990
	5	-6962.573(*)	1085.598	.000	-10587.728	-3337.418
	6	-9059.461(*)	1258.513	.000	-13262.034	-4856.887

7	-9118.142(*)	1519.937	.000	-14193.695	-4042.590
8	-9346.114(*)	1770.490	.000	-15258.340	-3433.888
9	-4625.323(*)	1191.558	.007	-8604.314	-646.332
10	-2429.178	906.863	.348	-5457.480	599.125

Based on estimated marginal means

\* The mean difference is significant at the .05 level.

a Adjustment for multiple comparisons: Sidak.

## 2. Total CSR Level

### Estimates

Measure: MEASURE\_1

Total CSR Level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	877.429	214.511	455.506	1299.352
Medium	559.183	151.682	260.839	857.527
High	801.518	212.059	384.418	1218.619

### Pairwise Comparisons

Measure: MEASURE\_1

		Mean Difference (I-J)	Std. Error	Sig.(a)	95% Confidence Interval for Difference(a)	
(I) Total CSR Level	(J) Total CSR Level				Upper Bound	Lower Bound
Low	Medium	318.246	262.721	.537	-312.142	948.634
	High	75.911	301.636	.992	-647.850	799.672
Medium	Low	-318.246	262.721	.537	-948.634	312.142
	High	-242.335	260.723	.730	-867.929	383.259
High	Low	-75.911	301.636	.992	-799.672	647.850
	Medium	242.335	260.723	.730	-383.259	867.929

Based on estimated marginal means

a Adjustment for multiple comparisons: Sidak.

### Univariate Tests

Measure: MEASURE\_1

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power(a)
Contrast	7024953.040	2	3512476.520	.888	.413	.005	.203
Error	1357349546.726	343	3957287.308				

The F tests the effect of Total CSR Level. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a Computed using alpha = .05

### 3. Total CSR Level \* year

Measure: MEASURE\_1

Total CSR Level	year	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Low	1	-14.87	343.001	-689.523	659.776
	2	801.51	297.463	216.425	1386.589
	3	-319.71	232.712	-777.431	138.014
	4	2721.59	559.968	1620.185	3822.993
	5	2155.26	689.144	799.781	3510.742
	6	4284.06	972.180	2371.876	6196.247
	7	3533.99	1413.177	754.406	6313.576
	8	5103.23	2147.573	879.157	9327.297
	9	2143.88	1843.218	-1481.553	5769.314
	10	-3866.36	1400.648	-6621.297	-1111.417
	11	-6890.86	1614.361	-10066.153	-3715.565
Medium	1	32.99	242.538	-444.061	510.038
	2	215.75	210.338	-197.964	629.467
	3	-373.66	164.552	-697.319	-50.001



High	4	2029.59	395.957	1250.782	2808.402
	5	1153.42	487.298	194.954	2111.892
	6	3364.71	687.435	2012.590	4716.828
	7	2634.24	999.267	668.772	4599.698
	8	711.92	1518.563	-2274.944	3698.794
	9	1759.94	1303.352	-803.627	4323.510
	10	-2462.16	990.407	-4410.201	-514.128
	11	-2915.73	1141.526	-5161.001	-670.457
	1	672.00	339.080	5.064	1338.942
	2	93.18	294.064	-485.213	671.577
	3	80.51	230.053	-371.978	533.005
	4	2623.07	553.568	1534.259	3711.891
	5	2069.76	681.268	729.773	3409.751
	6	4020.34	961.069	2130.009	5910.671
	7	5676.93	1397.026	2929.113	8424.747
	8	6713.92	2123.028	2538.125	10889.713
	9	-5537.12	1822.152	-9121.123	-1953.126
	10	-1893.22	1384.640	-4616.672	830.236
	11	-5702.68	1595.911	-8841.687	-2563.679

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